

Three Phase Quality Control Checklist Vegetation Removal (SOP-1)						
Team: TWO		Location: Castner Range		Date: 3/7/2016		
Personnel Present: SEE SIGN IN LIST						
Phase of Inspection (Circle): PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC QAPP	Have all team members reviewed the current SOP-1? Check Dates/Record of training.	P			(P)
2	SOP	Are personnel performing vegetation removal qualified in accordance with project documents?	P			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?	P			(P)
4	SOP	Are the PPE items required for vegetation removal present and serviceable?	P			(P),(I),(F)
5	SOP	Is the SUXOS ensuring the SOP is enforced and the vegetation removal is being conducted properly?	P			(P),(I),(F)
6	SOP	Is a current copy of the vegetation removal SOP, and all project field documents available to the Team when conducting site operations? Check dates	P			(P),(I),(F)
7	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting vegetation removal on site?	P			(P),(I),(F)
8	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct vegetation removal?	P			(P),(I),(F)
9	SOP	Are daily Tailgate Safety briefings conducted before vegetation removal begins to include the personnel being escorted?	P			(P),(I),(F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
10	SOP	Has all the equipment/vehicles to be utilized for conducting vegetation removal been functionally inspected, certified operational, and on site during removal operations?	P			(P), (I), (F)
11	SOP	Is a copy of the Vegetation Removal SOP1 maintained in the Team vehicle?	P			(P), (I), (F)
12	SOP	Are all vegetation removal personnel wearing the proper PPE for the equipment and tasks being performed IAW the SOP?	P			(P), (I), (F)
13	SOP	Is vegetation being removed for the purpose of conducting hand held and /or DGM operations briefed to be and cut to a level of 6" or less?	P			(P), (I), (F)
14	SOP	Are individuals conducting vegetation removal with fuel-powered brush cutters spaced at least 50 feet apart while the brush cutters are in operation?	P			(P), (I), (F)
15	SOP	Are Gas-powered brush cutters/trimmers being operated IAW the manufacturer's Owner Manual and this SOP.  1. Fueling 2. Starting 3. Operating and 4. Shut Down	P			(P), (I), (F)
16	SOP	Is all equipment being used for vegetation removal being inspected and maintained IAW manufacture's Owner Manual's and this SOP?	P			(P), (I), (F)

Three Phase Quality Control Checklist						
Vegetation Removal (SOP-1)						
Team: ONE		Location: Castner Range		Date: 3/7/2016		
Personnel Present: SEE SIGN IN LIST						
Phase of Inspection (Circle): PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC QAPP	Have all team members reviewed the current SOP-1? Check Dates/Record of training.	P			(P)
2	SOP	Are personnel performing vegetation removal qualified in accordance with project documents?	P			(P), (I), (F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?	P			(P)
4	SOP	Are the PPE items required for vegetation removal present and serviceable?	P			(P), (I), (F)
5	SOP	Is the SUXOS ensuring the SOP is enforced and the vegetation removal is being conducted properly?	P			(P), (I), (F)
6	SOP	Is a current copy of the vegetation removal SOP, and all project field documents available to the Team when conducting site operations? Check dates.	P			(P), (I), (F)
7	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting vegetation removal on site?	P			(P), (I), (F)
8	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct vegetation removal?	P			(P), (I), (F)
9	SOP	Are daily Tailgate Safety briefings conducted before vegetation removal begins to include the personnel being escorted?	P			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
10	SOP	Has all the equipment/vehicles to be utilized for conducting vegetation removal been functionally inspected, certified operational, and on site during removal operations?	P			(P). (I). (F)
11	SOP	Is a copy of the Vegetation Removal SOP1 maintained in the Team vehicle?	P			(P). (I). (F)
12	SOP	Are all vegetation removal personnel wearing the proper PPE for the equipment and tasks being performed IAW the SOP?	P			(P). (I). (F)
13	SOP	Is vegetation being removed for the purpose of conducting hand held and /or DGM operations briefed to be and cut to a level of 6" or less?	P			(P), (I), (F)
14	SOP	Are individuals conducting vegetation removal with fuel-powered brush cutters spaced at least 50 feet apart while the brush cutters are in operation?	P			(P). (I), (F)
15	SOP	Are Gas-powered brush cutters/trimmers being operated IAW the manufacturer's Owner Manual and this SOP.  1. Fueling 2. Starting 3. Operating and 4. Shut Down	P			(P), (I), (F)
16	SOP	Is all equipment being used for vegetation removal being inspected and maintained IAW manufacture's Owner Manual's and this SOP?	P			(P). (I). (F)



# SIGN IN VEGETATION REMOVAL CLASS

## Castner Range

Print Name	Team #	(b) (6)
(b) (6)	2	(b) (6)
	1	
	1	
	1	
	1	
	1	
	2	
	2	
	2	
	2	
	2	
	2	
	1	

Class given by (b) (6) Date: 3/7/16

Three Phase Quality Control Checklist Vegetation Removal (SOP-1)						
Team: TWO		Location: Castner Range		Date: 3/22/2016		
Personnel Present: <i>TIM TWO</i>						
Phase of Inspection (Circle):    PREPARATORY (P); <u>INITIAL (I)</u> FOLLOW-UP (F)						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC QAPP	Have all team members reviewed the current SOP-1? <i>Check Dates/Record of training.</i>				(P)
2	SOP	Are personnel performing vegetation removal qualified in accordance with project documents?	I			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?				(P)
4	SOP	Are the PPE items required for vegetation removal present and serviceable?	I			(P),(I),(F)
5	SOP	Is the SUXOS ensuring the SOP is enforced and the vegetation removal is being conducted properly?	I			(P),(I),(F)
6	SOP	Is a current copy of the vegetation removal SOP, and all project field documents available to the Team when conducting site operations? <i>Check dates.</i>	I			(P),(I),(F)
7	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting vegetation removal on site?	I			(P),(I),(F)
8	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct vegetation removal?	I			(P),(I),(F)
9	SOP	Are daily Tailgate Safety briefings conducted before vegetation removal begins to include the personnel being escorted?	I			(P),(I),(F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
10	SOP	Has all the equipment/vehicles to be utilized for conducting vegetation removal been functionally inspected, certified operational, and on site during removal operations?	I			(P), (I), (F)
11	SOP	Is a copy of the Vegetation Removal SOP1 maintained in the Team vehicle?	I			(P), (I), (F)
12	SOP	Are all vegetation removal personnel wearing the proper PPE for the equipment and tasks being performed IAW the SOP?	I			(P), (I), (F)
13	SOP	Is vegetation being removed for the purpose of conducting hand held and /or DGM operations briefed to be and cut to a level of 6" or less?	I			(P), (I), (F)
14	SOP	Are individuals conducting vegetation removal with fuel-powered brush cutters spaced at least 50 feet apart while the brush cutters are in operation?	I			(P), (I), (F)
15	SOP	Are Gas-powered brush cutters/trimmers being operated IAW the manufacturer's Owner Manual and this SOP.  1. Fueling 2. Starting 3. Operating and 4. Shut Down	I			(P), (I), (F)
16	SOP	Is all equipment being used for vegetation removal being inspected and maintained IAW manufacture's Owner Manual's and this SOP?	I			(P), (I), (F)

May 2013

(b) (6)

(b) (6)

3/22/2018

Revision 3

<b>Three Phase Quality Control Checklist</b> <b>Vegetation Removal (SOP-1)</b>						
Team: Two		Location:Castner Range		Date:4/8/2016		
Personnel Present: Team Two						
Phase of Inspection (Circle): <i>PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)</i>						
<b>Checklist</b>						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC QAPP	Have all team members reviewed the current SOP-1? <i>Check Dates/Record of training.</i>				(P)
2	SOP	Are personnel performing vegetation removal qualified in accordance with project documents?	F			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?				(P)
4	SOP	Are the PPE items required for vegetation removal present and serviceable?	F			(P),(I),(F)
5	SOP	Is the SUXOS ensuring the SOP is enforced and the vegetation removal is being conducted properly?	F			(P),(I),(F)
6	SOP	Is a current copy of t h e vegetation removal SOP , and all project field documents available to the Team when conducting site operations? <i>Check dates.</i>	F			(P),(I),(F)
7	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting <del>vegetation removal</del> on site?	F			(P),(I),(F)
8	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct vegetation removal?	F			(P),(I),(F)
9	SOP	Are daily Tailgate Safety briefings conducted <del>before</del> vegetation removal begins to include the personnel being escorted?	F			(P),(I),(F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
10	SOP	Has all the equipment/vehicles to be utilized for conducting vegetation removal been functionally inspected, certified operational, and on site during removal operations?	F			(P), (I), (F)
11	SOP	Is a copy of the Vegetation Removal SOP1 maintained in the Team vehicle?	F			(P), (I), (F)
12	SOP	Are all vegetation removal personnel wearing the proper PPE for the equipment and tasks being performed IAW the SOP?	F			(P), (I), (F)
13	SOP	Is vegetation being removed for the purpose of conducting hand held and /or DGM operations briefed to be and cut to a level of 6" or less?	F			(P), (I), (F)
14	SOP	Are individuals conducting vegetation removal with fuel-powered brush cutters spaced at least 50 feet apart while the brush cutters are in operation?	F			(P), (I), (F)
15	SOP	Are Gas-powered brush cutters/trimmers being operated IAW the manufacturer's Owner Manual and this SOP <div>1. Fueling</div> <div>2. Starting</div> <div>3. Operating and</div> <div>4. Shut Down</div>	F			(P), (I), (F)
16	SOP	Is all equipment being used for vegetation removal being inspected and maintained IAW manufacture's Owner Manual's and this SOP?	F			(P), (I), (F)



Three Phase Quality Control Checklist						
MEC Transportation of Explosives (MEC SOP 6)						
Team: ONE		Location: CASTNER RANGE		Date: 3/9/16		
Personnel Present: SEE SIGN IN LIST						
Phase of Inspection (Circle): PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC PROJECT PLAN	Have all team members reviewed the current MEC SOP 6? Check Dates/Record of training.	P			(P)
2	SOP	Are personnel performing Transportation of Explosives qualified in accordance with project documents?	P			(P), (I), (F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?	P			(P)
4	SOP	Has the Project Manager or his representative completed the mandatory notifications prior to conducting Transportation of Explosives on site? (i.e., Medical, Fire, Security,)	P			(P), (I), (F)
5	SOP	Did the SUXOS ensure the SOP is enforced and the proper forms have been filled out and are in the vehicle? (JV203A, JV203B, and DD 626)	P			(P), (I), (F)
6	SOP	Did the UXOSO ensure that the MSDSs for corresponding explosives are on site and available?	P			(P), (I), (F)
7	SOP,	Is appropriate personal and performance related equipment available for the proper conduct of Transportation of Explosives?	P			(P), (I), (F)



Item	Ref.	Inspection Point	Yes	No	N/A	Comments
8	SOP	Did the UXOQC ensure that all site deliverables pertaining to Transportation of Explosives meet the requirements of the PWS, and SOP references?	P			(P), (I), (F)
9	SOP	Is a current copy of Transportation of Explosives SOP, and all project field documents available to the Team when conducting site operations? Check dates.	P			(P), (I), (F)
10	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior the Transport of explosives on site?	P			(P), (I), (F)
11	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to transport explosives?	P			(P), (I), (F)
12	SOP	Is the proper placarding available for the explosives being transported and is it being utilized?	P			(P), (I), (F)
13	SOP	Do individuals assigned to transport explosives meet all the site driver requirements?	P			(P), (I), (F)
14	SOP	Are the PPE items required for Transport of Explosives present and serviceable?	P			(P), (I), (F)
15	SOP	Are daily Tailgate Safety briefings conducted before transport of explosive operations begin?	P			(P), (I), (F)
16	SOP	Has all general and site specific training been conducted prior to transporting explosives on the project site?	P			(P), (I), (F)
17	SOP	Has all the equipment/vehicles to be utilized for the transportation of explosives on site been functionally inspected and certified operational?	P			(P), (I), (F)
18	SOP	Is a copy of the BATF License/Employee Possessor Form maintained in the project office and available in the vehicle transporting explosives?	P			(P), (I), (F)
19	SOP	Is a copy of the Transportation of Explosives SOP, completed JV forms 203A/ 203B, and JV form 542 Safety Audit Checklist section 14.0 – 14.14 maintained in the transport vehicle while explosives are being transported?	P			(P), (I), (F)

Revised June 2012

Punch List Items	
No.	

Conducted by: (b) (6) Acknowledged by: \_\_\_\_\_

Three Phase Quality Control Checklist

MEC Transportation of Explosives (MEC SOP 6)

Team: TWO

Location: CASTNER RANGE

Date: 3/9/16

Personnel Present: SEE SIGN IN LIST

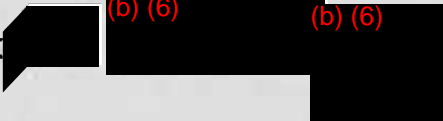
Phase of Inspection (Circle): PREPARATORY (P) INITIAL (I) FOLLOW-UP (F)

Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC PROJECT PLAN	Have all team members reviewed the current MEC SOP 6? <i>Check Dates/Record of training.</i>	P			(P)
2	SOP	Are personnel performing Transportation of Explosives qualified in accordance with project documents?	P			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?	P			(P)
4	SOP	Has the Project Manager or his representative completed the mandatory notifications prior to conducting Transportation of Explosives on site? (i.e., Medical, Fire, Security,)	P			(P),(I),(F)
5	SOP	Did the SUXOS ensure the SOP is enforced and the proper forms have been filled out and are in the vehicle? (JV203A, JV203B, and DD 626)	P			(P),(I),(F)
6	SOP	Did the UXOSO ensure that the MSDSs for corresponding explosives are on site and available?	P			(P),(I),(F)
7	SOP,	Is appropriate personal and performance related equipment available for the proper conduct of Transportation of Explosives?	P			(P),(I),(F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
8	SOP	Did the UXOQC ensure that all site deliverables pertaining to Transportation of Explosives meet the requirements of the PWS, and SOP references?	P			(P), (I), (F)
9	SOP	Is a current copy of Transportation of Explosives SOP, and all project field documents available to the Team when conducting site operations? Check dates.	P			(P), (I), (F)
10	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior the Transport of explosives on site?	P			(P), (I), (F)
11	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to transport explosives?	P			(P), (I), (F)
12	SOP	Is the proper placarding available for the explosives being transported and is it being utilized?	P			(P), (I), (F)
13	SOP	Do individuals assigned to transport explosives meet all the site driver requirements?	P			(P), (I), (F)
14	SOP	Are the PPE items required for Transport of Explosives present and serviceable?	P			(P), (I), (F)
15	SOP	Are daily Tailgate Safety briefings conducted before transport of explosive operations begin?	P			(P), (I), (F)
16	SOP	Has all general and site specific training been conducted prior to transporting explosives on the project site?	P			(P), (I), (F)
17	SOP	Has all the equipment/vehicles to be utilized for the transportation of explosives on site been functionally inspected and certified operational?	P			(P), (I), (F)
18	SOP	Is a copy of the BATF License/Employee Possessor Form maintained in the project office and available in the vehicle transporting explosives?	P			(P), (I), (F)
19	SOP	Is a copy of the Transportation of Explosives SOP, completed JV forms 203A/ 203B, and JV form 542 Safety Audit Checklist section 14.0 – 14.14 maintained in the transport vehicle while explosives are being transported?	P			(P), (I), (F)

Revised June 2012

Punch List Items	
No.	

Conducted by:  Acknowledged by: \_\_\_\_\_

**SIGN IN TRANSPERTATION of EXPLOSIVES**  
**MEC STANDARD OPERATING PROCEDURES**  
**CLASS Castner Range**

Print Name	Team #	
(b) (6)	2	(b) (6)
	UXOQCS	

Class given by (b) (6) Date: 5/11/16



**Three Phase Quality Control Checklist**  
**MEC Transportation of Explosives (MEC SOP 6)**

Team: Driver Shipper Carrier	Location: Castner Range	Date: 03/22/2016
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Personnel Present: Demo Team and CDL Driver

Phase of Inspection (Circle): PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)

Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC PROJECT PLAN	Have all team members reviewed the current MEC SOP 6? <i>Check Dates/Record of training.</i>				(P)
2	SOP	Are personnel performing Transportation of Explosives qualified in accordance with project documents?	I			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?				(P)
4	SOP	Has the Project Manager or his representative completed the mandatory notifications prior to conducting <del>Transportation of Explosives on site</del> (i.e., <i>Medical, Fire, Security.</i> )	I			(P),(I),(F)
5	SOP	Did the SUXOS ensure the SOP is enforced and the proper forms have been filled out and are in the vehicle? (JV203A, JV203B, and DD 626)	I			(P),(I),(F)
6	SOP	Did the UXOSO ensure that the MSDSs for corresponding explosives are on site and available?	I			(P), (I), (F)
7	SOP,	Is appropriate personal and performance related equipment available for the proper conduct of Transportation of Explosives?	I			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
8	SOP	Did the UXOQC ensure that all site deliverables pertaining to Transportation of Explosives meet the requirements of the PWS, and SOP references?	I			(P), (I), (F)
9	SOP	Is a current copy of Transportation of Explosives SOP, and all project field documents available to the Team when conducting site operations? <i>Check dates.</i>	I			(P), (I), (F)
10	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior the Transport of explosives on site?	I			(P), (I), (F)
11	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to transport explosives?	I			(P), (I), (F)
12	SOP	Is the proper placarding available for the explosives being transported and is it being utilized?	I			(P), (I), (F)
13	SOP	Do individuals assigned to transport explosives meet all the site driver requirements?	I			(P), (I), (F)
14	SOP	Are the PPE items required for Transport of Explosives present and serviceable?	I			(P), (I), (F)
15	SOP	Are daily Tailgate Safety briefings conducted before transport of explosive operations begin?	I			(P), (I), (F)
16	SOP	Has all general and site specific training been conducted prior to transporting explosives on the project site?	I			(P), (I), (F)
17	SOP	Has all the equipment/vehicles to be utilized for the transportation of explosives on site been functionally inspected and certified operational?	I			(P), (I), (F)
18	SOP	Is a copy of the BATF License/Employee Possessor Form maintained in the project office and available in the vehicle transporting explosives?	I			(P), (I), (F)
19	SOP	Is a copy of the Transportation of Explosives SOP, completed JV forms 203A/ 203B, and JV form 542 Safety Audit Checklist section 14.0 – 14.14 maintained in the transport vehicle while explosives are being transported?	I			(P), (I), (F)

Revised June 2012

Punch List Items	
No.	

(b) (6)

Conducted by

ged by: \_\_\_\_\_

<div>Three Phase Quality Control Checklist</div> <div>MEC Transportation of Explosives (MEC SOP 6)</div>						
Team: Demo Team , DRIVER		Location: Castner Range		Date: 3/29/2016		
Personnel Present: Demo Team AND CDL DRIVER						
Phase of Inspection (Circle): PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC PROJECT PLAN	Have all team members reviewed the current MEC SOP 6? Check Dates/Record of training.				(P)
2	SOP	Are personnel performing Transportation of Explosives qualified in accordance with project documents?	F			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?				(P)
4	SOP	Has the Project Manager or his representative completed the mandatory notifications prior to conducting Transportation of Explosives on site? (i.e., Medical, Fire, Security,)	F			(P),(I),(F)
5	SOP	Did the SUXOS ensure the SOP is enforced and the proper forms have been filled out and are in the vehicle? (JV203A, JV203B, and DD 626)	F			(P),(I),(F)
6	SOP	Did the UXOSO ensure that the MSDSs for corresponding explosives are on site and available?	F			(P), (I), (F)
7	SOP,	Is appropriate personal and performance related equipment available for the proper conduct of Transportation of Explosives?	F			(P), (I), (F)

Revised June 2012

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
8	SOP	Did the UXOQC ensure that all site deliverables pertaining to Transportation of Explosives meet the requirements of the PWS, and SOP references?	F			(P), (I), (F)
9	SOP	Is a current copy of Transportation of Explosives SOP, and all project field documents available to the Team when conducting site operations? <i>Check dates.</i>	F			(P),(I),(F)
10	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior the Transport of explosives on site?	F			(P), (I), (F)
11	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to transport explosives?	F			(P), (I), (F)
12	SOP	Is the proper placarding available for the explosives being transported and is it being utilized?	F			(P), (I), (F)
13	SOP	Do individuals assigned to transport explosives meet all the site driver requirements?	F			(P), (I), (F)
14	SOP	Are the PPE items required for Transport of Explosives present and serviceable?	F			(P), (I), (F)
15	SOP	Are daily Tailgate Safety briefings conducted before transport of explosive operations begin?	F			(P), (I), (F)
16	SOP	Has all general and site specific training been conducted prior to transporting explosives on the project site?	F			(P), (I), (F)
17	SOP	Has all the equipment/vehicles to be utilized for the transportation of explosives on site been functionally inspected and certified operational?	F			(P), (I), (F)
18	SOP	Is a copy of the BATF License/Employee Possessor Form maintained in the project office and available in the vehicle transporting explosives?	F			(P), (I), (F)
19	SOP	Is a copy of the Transportation of Explosives SOP, completed JV forms 203A/ 203B, and JV form 542 Safety Audit Checklist section 14.0 – 14.14 maintained in the transport vehicle while explosives are being transported?	F			(P), (I), (F)

Revised June 2012

Punch List Items	
No.	

Conducted by: (b) (6)

Acknowledged by: \_\_\_\_\_



Three Phase Quality Control Checklist		
Target Reacquisition (MEC SOP 6)		
Team: TWO	Location: CASTNER RANGE	Date: 3/9/16
Personnel Present: SEE TEAM SIGN IN LIST		
Phase of Inspection (circle): Preparatory (P) Initial (I); Follow-up (F)		

Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC SOP 6 Sect. 2	Has MEC SOP 6 been reviewed and approved by a Qualified Geophysicist?	P			(P)
2	QAPP	Have all team members reviewed the current MEC SOP 4? Check Dates/Record of training.	P			(P)
3	QAPP	Are personnel performing target reacquisition qualified in accordance with the QAPP?	P			(P),(I),(F)
4	SOP Sect. 4	Have target reacquisition team members, in addition to initial site-specific training, received training in the use of survey and detection instruments required for reacquisition operations, and have they been certified with the instruments in the IVS?	P			(P), (I), (F)
5	SOP Sect. 4	Have target reacquisition team members received training on reacquisition methodology, data requirements, and field documentation protocol, and have they been provided an overview of the project approach and how the reacquisition tasks integrate into the overall program?	P			
6	APP/SSHP	Are the reacquisition field team members wearing the appropriate personal protective equipment and have removed all metallic objects from their person?	P			(P), (I), (F)

Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
7	SOP Sec 5.1	Are the required equipment items and associated components required for target reacquisition present on site and serviceable?	P			(P), (I), (F)
8	QAPP	Is a current copy of the QAPP, MEC SOP 6, and APP/SSHP available to the Team when conducting field operations? Check dates.	P			(P),(I),(F)
9	APP/SSHP	Are daily briefings conducted covering health and safety and reacquisition topics?				(I), (F)
10	SOP Sec 6.0	Are QC checks, to include ensuring positioning information and sensor responses, valid and repeatable, performed and documented?				(I), (F)

Punch List Items	
No.	

Conducted by: (b) (6)

Acknowledged: \_\_\_\_\_

Three Phase Quality Control Checklist		
Target Reacquisition (MEC SOP 6)		
Team: <u>ONE</u>	Location: <u>CASTNER RANGE</u>	Date: <u>3/9/16</u>
Personnel Present: <u>SEE TEAM SIGN IN LIST</u>		
Phase of Inspection (circle): Preparatory <u>(P)</u> , Initial (I); Follow-up (F)		

Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC SOP 6 Sect. 2	Has MEC SOP 6 been reviewed and approved by a Qualified Geophysicist?	P			(P)
2	QAPP	Have all team members reviewed the current MEC SOP 4? Check Dates/Record of training.	P			(P)
3	QAPP	Are personnel performing target reacquisition qualified in accordance with the QAPP?	P			(P),(I),(F)
4	SOP Sect. 4	Have target reacquisition team members, in addition to initial site-specific training, received training in the use of survey and detection instruments required for reacquisition operations, and have they been certified with the instruments in the IVS?	P			(P), (I), (F)
5	SOP Sect. 4	Have target reacquisition team members received training on reacquisition methodology, data requirements, and field documentation protocol, and have they been provided an overview of the project approach and how the reacquisition tasks integrate into the overall program?	P			
6	APP/SSHP	Are the reacquisition field team members wearing the appropriate personal protective equipment and have removed all metallic objects from their person?	P			(P), (I), (F)
7	SOP Sec 5.1	Are the required equipment items and associated components required for target reacquisition present on site and serviceable?	P			(P), (I), (F)

Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
8	QAPP	Is a current copy of the QAPP, MEC SOP 6, and APP/SSHP available to the Team when conducting field operations? Check dates.	P			(P),(I),(F)
9	APP/SSHP	Are daily briefings conducted covering health and safety and reacquisition topics?				(I), (F)
10	SOP Sec 6.0	Are QC checks, to include ensuring positioning information and sensor responses, valid and repeatable, performed and documented?				(I), (F)

Punch List Items	
No.	

Conducted by: \_\_\_\_\_

Acknowledged by: \_\_\_\_\_

(b) (6)

**SIGN IN TARGET REACQUISITION MEC  
STANDARD OPERATING PROCEDURES CLASS**

**Castner Range**

(b) (6)	Team #	Signature
	DGWM	(b) (6)
	T2	
	2	
	2	
	1	
	1	
	2	
	2	
	1	
	2	
	1	
	1	
	2	

**Class given b**

(b) (6)

**Date:** 3/10/16



### Three Phase Quality Control Checklist

#### Target Reacquisition (MEC SOP 6)

Team: Team One, Two	Location: Castner Range	Date: 3/15/2016
Personnel Present: <i>All</i>		
Phase of Inspection (circle): Preparatory (P); Initial (I); Follow-up (F)		

Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC SOP 6 Sect. 2	Has MEC SOP 6 been reviewed and approved by a Qualified Geophysicist?				(P)
2	QAPP	Have all team members reviewed the current MEC SOP 4? Check Dates/Record of training.				(P)
3	QAPP	Are personnel performing target reacquisition qualified in accordance with the QAPP?	I			(P),(I),(F)
4	SOP Sect. 4	Have target reacquisition team members, in addition to initial site-specific training, received training in the use of survey and detection instruments required for reacquisition operations, and have they been certified with the instruments in the IVS?	I			(P), (I), (F)
5	SOP Sect. 4	Have target reacquisition team members received training on reacquisition methodology, data requirements, and field documentation protocol, and have they been provided an overview of the project approach and how the reacquisition tasks integrate into the overall program?	I			
6	APP/SSHP	Are the reacquisition field team members wearing the appropriate personal protective equipment and have removed all metallic objects from their person?	I			(P), (I), (F)
7	SOP Sec 5.1	Are the required equipment items and associated components required for target reacquisition present on site and serviceable?	I			(P), (I), (F)



Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
8	QAPP	Is a current copy of the QAPP, MEC SOP 6, and APP/SSHP available to the Team when conducting field operations? Check dates.	I			(P),(I),(F)
9	APP/SSHP	Are daily briefings conducted covering health and safety and reacquisition topics?	I			(I), (F)
10	SOP Sec 6.0	Are QC checks, to include ensuring positioning information and sensor responses, valid and repeatable, performed and documented?	I			(I), (F)

Punch List Items	
No.	

Conducted by:

Acknowledge

(b) (6)

Three Phase Quality Control Checklist		
Target Reacquisition (MEC SOP 6)		
Team: Team One, Two	Location: Castner Range	Date: 3/21/2016
Personnel Present: ALL		
Phase of Inspection (circle): Preparatory (P); Initial (I); <u>Follow-up (F)</u>		

Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC SOP 6 Sect. 2	Has MEC SOP 6 been reviewed and approved by a Qualified Geophysicist?				(P)
2	QAPP	Have all team members reviewed the current MEC SOP 4? Check Dates/Record of training.				(P)
3	QAPP	Are personnel performing target reacquisition qualified in accordance with the QAPP?	F			(P),(I),(F)
4	SOP Sect. 4	Have target reacquisition team members, in addition to initial site-specific training, received training in the use of survey and detection instruments required for reacquisition operations, and have they been certified with the instruments in the IVS?	F			(P), (I), (F)
5	SOP Sect. 4	Have target reacquisition team members received training on reacquisition methodology, data requirements, and field documentation protocol, and have they been provided an overview of the project approach and how the reacquisition tasks integrate into the overall program?	F			
6	APP/SSHP	Are the reacquisition field team members wearing the appropriate personal protective equipment and have removed all metallic objects from their person?	F			(P), (I), (F)
7	SOP Sec 5.1	Are the required equipment items and associated components required for target reacquisition present on site and serviceable?	F			(P), (I), (F)

Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
8	QAPP	Is a current copy of the QAPP, MEC SOP 6, and APP/SSHP available to the Team when conducting field operations? Check dates.	F			(P),(I),(F)
9	APP/SSHP	Are daily briefings conducted covering health and safety and reacquisition topics?	F			(I), (F)
10	SOP Sec 6.0	Are QC checks, to include ensuring positioning information and sensor responses, valid and repeatable, performed and documented?	F			(I), (F)

Punch List Items	
No.	

(b) (6)

Conducted by:

Acknowledged \_\_\_\_\_

<div>Three Phase Quality Control Checklist</div> <div>Inspection/Disposal of MD Operations (MEC SOP 8)</div>						
Team: Team One, Two		Location: Castner Range		Date: 9 March 2016		
Personnel Present: ALL						
Phase of Inspection (Circle): <u>PREPARATORY (P)</u> INITIAL (I); FOLLOW-UP (F)						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC PROJECT PLAN	Have all team members reviewed the current MEC SOP 8? Check Dates/Record of training.	P			(P)
2	SOP	Are personnel performing inspection and disposal of MD qualified in accordance with project documents?	P			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?	P			(P)
4	SOP	Containers appropriate for the type and amount of MD being processed on site, that will secure the material after it has been inspected and can the container be locked and sealed IAW the SOP?	P			
5	SOP	Is the SUXOS ensuring the SOP is enforced and the inspection and disposal of MD is being conducted IAW project documents and the Inspection/Disposal of MD SOP?	P			(P),(I),(F)
6	SOP	Did the UXOSO conduct surveillance of the process IWA the SOP?	P			(P), (I), (F)
7	SOP	Did the SUXOS conduct random checks of the 100% inspection process and verify on form DD1348-1A that the material is free of hazards IAW the SOP??	P			(P), (I), (F)
8	SOP	Did the UXOQC ensure that all site deliverables pertaining to inspection and disposal of MD demolition operations meet the requirements of project documents and the SOP?	P			(P), (I), (F)

9	SOP	Is a current copy of the inspection and disposal of MD demolition operations SOP, and all project field documents available to the Team when conducting site operations? <i>Check dates.</i>	P			(P),(I),(F)
10	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting demolition operations	P			(P), (I), (F)
11	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct inspection and disposal of MD?	P			(P), (I), (F)
12	SOP	Does the UXOSO ensure the handling of material being inspected is conducted with care and attention to the hazards involved with the operation?	P			(P), (I), (F)
13	SOP	Does the UXOSO ensure the proper PPE is available to the team and that it is being properly utilized?	P			(P), (I), (F)
14	SOP	Are the PPE items required for inspection and disposal of MD present and serviceable?	P			(P), (I), (F)
15	SOP	Are daily Tailgate Safety briefings conducted before inspection and disposal of MD operations begin?	P			(P), (I), (F)
16	SOP	Has all general and site specific training been conducted prior to inspection and disposal of MD on the project site?	P			(P), (I), (F)
17	SOP	Has all the equipment/vehicles to be utilized for conducting inspection and disposal of MD been functionally inspected and certified operational?	P			(P), (I), (F)
18	SOP	Is form DD1348-1A available and is it being used to transfer MDAS off site after the material has been Verified and Certified IAW the SOP?	P			(P), (I), (F)
19	SOP	Is a copy of the Inspection/Disposal of MD SOP maintained in the Team vehicle?	P			(P), (I), (F)

**Punch List Items**

No.	

Punch List Items	

Conducted by (b) (6) acknowledged by: \_\_\_\_\_



<b>Three Phase Quality Control Checklist</b> <b>Inspection/Disposal of MD Operations (MEC SOP 8)</b>						
Team: Team One, Two		Location: Castner Range		Date: 22 March 2016		
Personnel Present: ALL						
Phase of Inspection (Circle): PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)						
<b>Checklist</b>						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC PROJECT PLAN	Have all team members reviewed the current MEC SOP 8? Check Dates/Record of training.				(P)
2	SOP	Are personnel performing inspection and disposal of MD qualified in accordance with project documents?	I			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?				(P)
4	SOP	Containers appropriate for the type and amount of MD being processed on site, that will secure the material after it has been inspected and can the container be locked and sealed IAW the SOP?	I			
5	SOP	Is the SUXOS ensuring the SOP is enforced and the inspection and disposal of MD is being conducted IAW project documents and the Inspection/Disposal of MD SOP?	I			(P),(I),(F)
6	SOP	Did the UXOSO conduct surveillance of the process IWA the SOP?	I			(P), (I), (F)
7	SOP	Did the SUXOS conduct random checks of the 100% inspection process and verify on form DD1348-1A that the material is free of hazards IAW the SOP??	I			(P), (I), (F)
8	SOP	Did the UXOQC ensure that all site deliverables pertaining to inspection and disposal of MD demolition operations meet the requirements of project documents and the SOP?	I			(P), (I), (F)

9	SOP	Is a current copy of the inspection and disposal of MD demolition operations SOP, and all project field documents available to the Team when conducting site operations? <i>Check dates.</i>	I			(P),(I),(F)
10	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting demolition operations	I			(P), (I), (F)
11	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct inspection and disposal of MD?	I			(P), (I), (F)
12	SOP	Does the UXOSO ensure the handling of material being inspected is conducted with care and attention to the hazards involved with the operation?	I			(P), (I), (F)
13	SOP	Does the UXOSO ensure the proper PPE is available to the team and that it is being properly utilized?	I			(P), (I), (F)
14	SOP	Are the PPE items required for inspection and disposal of MD present and serviceable?	I			(P), (I), (F)
15	SOP	Are daily Tailgate Safety briefings conducted before inspection and disposal of MD operations begin?	I			(P), (I), (F)
16	SOP	Has all general and site specific training been conducted prior to inspection and disposal of MD on the project site?	I			(P), (I), (F)
17	SOP	Has all the equipment/vehicles to be utilized for conducting inspection and disposal of MD been functionally inspected and certified operational?	I			(P), (I), (F)
18	SOP	Is form DD1348-1A available and is it being used to transfer MDAS off site after the material has been Verified and Certified IAW the SOP?	I			(P), (I), (F)
19	SOP	Is a copy of the Inspection /Disposal of MD SOP maintained in the Team vehicle?	I			(P), (I), (F)

**Punch List Items**

No.	

Punch List Items	

Conducted by (b) (6)

Acknowledged by: \_\_\_\_\_

<div>Three Phase Quality Control Checklist</div> <div>Inspection/Disposal of MD Operations (MEC SOP 8)</div>						
Team: Team One, Two		Location: Castner Range		Date: 05 April 2016		
Personnel Present: ALL						
Phase of Inspection (Circle): PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC PROJECT PLAN	Have all team members reviewed the current MEC SOP 8? Check Dates/Record of training.				(P)
2	SOP	Are personnel performing inspection and disposal of MD qualified in accordance with project documents?	F			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?				(P)
4	SOP	Containers appropriate for the type and amount of MD being processed on site, that will secure the material after it has been inspected and can the container be locked and sealed IAW the SOP?	F			
5	SOP	Is the SUXOS ensuring the SOP is enforced and the inspection and disposal of MD is being conducted IAW project documents and the Inspection/Disposal of MD SOP?	F			(P),(I),(F)
6	SOP	Did the UXOSO conduct surveillance of the process IWA the SOP?	F			(P), (I), (F)
7	SOP	Did the SUXOS conduct random checks of the 100% inspection process and verify on form DD1348-1A that the material is free of hazards IAW the SOP??	F			(P), (I), (F)
8	SOP	Did the UXOQC ensure that all site deliverables pertaining to inspection and disposal of MD demolition operations meet the requirements of project documents and the SOP?	F			(P), (I), (F)

9	SOP	Is a current copy of the inspection and disposal of MD demolition operations SOP, and all project field documents available to the Team when conducting site operations? <i>Check dates.</i>	F			(P),(I),(F)
10	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting demolition operations	F			(P), (I), (F)
11	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct inspection and disposal of MD?	F			(P), (I), (F)
12	SOP	Does the UXOSO ensure the handling of material being inspected is conducted with care and attention to the hazards involved with the operation?	F			(P), (I), (F)
13	SOP	Does the UXOSO ensure the proper PPE is available to the team and that it is being properly utilized?	F			(P), (I), (F)
14	SOP	Are the PPE items required for inspection and disposal of MD present and serviceable?	F			(P), (I), (F)
15	SOP	Are daily Tailgate Safety briefings conducted before inspection and disposal of MD operations begin?	F			(P), (I), (F)
16	SOP	Has all general and site specific training been conducted prior to inspection and disposal of MD on the project site?	F			(P), (I), (F)
17	SOP	Has all the equipment/vehicles to be utilized for conducting inspection and disposal of MD been functionally inspected and certified operational?	F			(P), (I), (F)
18	SOP	Is form DD1348-1A available and is it being used to transfer MDAS off site after the material has been Verified and Certified IAW the SOP?	F			(P), (I), (F)
19	SOP	Is a copy of the Inspection/Disposal of MD SOP maintained in the Team vehicle?	F			(P), (I), (F)

**Punch List Items**

No.	

Punch List Items	

(b) (6)

Conducted by: \_\_\_\_\_

Acknowledged by: \_\_\_\_\_



**SIGN IN FOR Inspection/Disposition OF  
MPPEH/MD**

**CASTNER RANGE**

(b) (6)		Team	(b) (6)
		2	
		2	
		2	
		2	
		2	
		2	
		1	
		2	
		1	
		1	
		2	
		1	

**Class given by**

**Date:** 3/11/16

<b>Three Phase Quality Control Checklist</b> <b>Demolition/Disposal of MEC Operations (MEC SOP 7)</b>						
Team: Demo Team, SUXOS, UXOSO, UXOQCS		Location: Castner Range		Date: 16 March 2016		
Personnel Present: : Demo Team, SUXOS, UXOSO, UXOQCS						
Phase of Inspection (Circle): <i>PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)</i>						
<b>Checklist</b>						
<b>Item</b>	<b>Ref.</b>	<b>Inspection Point</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Comments</b>
1	MEC PROJECT PLAN	Have all team members reviewed the current MEC SOP 7? <i>Check Dates/Record of training.</i>	P			(P)
2	SOP	Are personnel performing demolition operations qualified in accordance with project documents?	P			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?	P			(P)
4	SOP	Has the SUXOS completed the mandatory notifications prior to conducting T demolition operations on site IAW project documents? (i.e., <i>Medical, Fire, Security,</i> )	P			(P),(I),(F)
5	SOP	Did the SUXOS ensure the SOP is enforced and the proper forms have been filled out and are in the explosive transport vehicle? (JV203A, JV203B, and DD 626 if required)	P			(P),(I),(F)
6	SOP	Did the UXOSO ensure that the MSDSs for corresponding explosives are on site and available?	P			(P), (I), (F)
7	SOP	Is appropriate personal and performance related equipment available for the proper conduct of demolition operations?	P			(P), (I), (F)

Revised June 2012

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
8	SOP	Did the UXOQC ensure that all site deliverables pertaining to demolition operations meet the requirements of project document and the SOP?	P			(P), (I), (F)
9	SOP	Is a current copy of demolition operations SOP, and all project field documents available to the Team when conducting site operations? Check dates.	P			(P), (I), (F)
10	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting demolition operations on site?	P			(P), (I), (F)
11	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct demolition operations?	P			(P), (I), (F)
12	SOP	Is the proper placarding available for the explosives being transported and is it being utilized?	P			(P), (I), (F)
13	SOP	Do individuals assigned to conduct demolition operations meet all the requirements of project documents and the site demolition SOP?	P			(P), (I), (F)
14	SOP	Are the PPE items required for demolition operations present and serviceable?	P			(P), (I), (F)
15	SOP	Are daily Tailgate Safety briefings conducted before demolition operations begin?	P			(P), (I), (F)
16	SOP	Has all general and site specific training been conducted prior to demolition operations on the project site?	P			(P), (I), (F)
17	SOP	Has all the equipment/vehicles to be utilized for conducting demolition operations on site been functionally inspected and certified operational?	P			(P), (I), (F)
18	SOP	Is a copy of the BATF License/Employee Possessor Form maintained in the project office and available in the vehicle transporting explosives to the demolition site?	P			(P), (I), (F)
19	SOP	Is a copy of the Demolition/disposal of MEC SOP, and JV form 542 Safety Audit Checklist section 17.0-17.8 maintained in the Demolition Team vehicle?	P			(P), (I), (F)

Revised June 2012

Punch List Items	
No.	

(b) (6)

Conducted by: \_\_\_\_\_ Acknowledged by: \_\_\_\_\_

<div>Three Phase Quality Control Checklist</div> <div>Demolition/Disposal of MEC Operations (MEC SOP 7)</div>						
Team: Demo Team, SUXOS, UXOSO, UXOQCS		Location: Castner Range		Date: 22 March 2016		
Personnel Present: : Demo Team, SUXOS, UXOSO, UXOQCS						
Phase of Inspection (Circle): <i>PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)</i>						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC PROJECT PLAN	Have all team members reviewed the current MEC SOP 7? <i>Check Dates/Record of training.</i>				(P)
2	SOP	Are personnel performing demolition operations qualified in accordance with project documents?	I			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?				(P)
4	SOP	Has the SUXOS completed the mandatory notifications prior to conducting T demolition operations on site IAW project documents? (i.e., <i>Medical, Fire, Security,</i> )	I			(P),(I),(F)
5	SOP	Did the SUXOS ensure the SOP is enforced and the proper forms have been filled out and are in the explosive transport vehicle? (JV203A, JV203B, and DD 626 if required)	I			(P),(I),(F)
6	SOP	Did the UXOSO ensure that the MSDSs for corresponding explosives are on site and available?	I			(P), (I), (F)
7	SOP	Is appropriate personal and performance related equipment available for the proper conduct of demolition operations?	I			(P), (I), (F)

Revised June 2012

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
8	SOP	Did the UXOQC ensure that all site deliverables pertaining to demolition operations meet the requirements of project document and the SOP?	I			(P), (I), (F)
9	SOP	Is a current copy of demolition operations SOP, and all project field documents available to the Team when conducting site operations? Check dates.	I			(P),(I),(F)
10	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting demolition operations on site?	I			(P), (I), (F)
11	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct demolition operations?	I			(P), (I), (F)
12	SOP	Is the proper placarding available for the explosives being transported and is it being utilized?	I			(P), (I), (F)
13	SOP	Do individuals assigned to conduct demolition operations meet all the requirements of project documents and the site demolition SOP?	I			(P), (I), (F)
14	SOP	Are the PPE items required for demolition operations present and serviceable?	I			(P), (I), (F)
15	SOP	Are daily Tailgate Safety briefings conducted before demolition operations begin?	I			(P), (I), (F)
16	SOP	Has all general and site specific training been conducted prior to demolition operations on the project site?	I			(P), (I), (F)
17	SOP	Has all the equipment/vehicles to be utilized for conducting demolition operations on site been functionally inspected and certified operational?	I			(P), (I), (F)
18	SOP	Is a copy of the BATF License/Employee Possessor Form maintained in the project office and available in the vehicle transporting explosives to the demolition site?	I			(P), (I), (F)
19	SOP	Is a copy of the Demolition/disposal of MEC SOP, and JV form 542 Safety Audit Checklist section 17.0-17.8 maintained in the Demolition Team vehicle?	I			(P), (I), (F)

Revised June 2012



Punch List Items	
No.	

Conducted by: (b) (6)

Acknowledged by: \_\_\_\_\_

**SIGN IN DEMOLITION of EXPLOSIVES**  
**MEC STANDARD OPERATING PROCEDURES**  
**CLASS Castner Range**

(b) (6)		Team #	(b) (6)
		2	
		2	
		2	
		2	
		2	
		2	
		2	

Class given by (b) (6) Date: 3/9/16

<div>Three Phase Quality Control Checklist</div> <div>Demolition/Disposal of MEC Operations (MEC SOP 7)</div>						
Team: Demo Team, SUXOS, UXOSO, UXOQCS		Location: Castner Range		Date: 04 April 2016		
Personnel Present: : Demo Team, SUXOS, UXOSO, UXOQCS						
Phase of Inspection (Circle): <i>PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)</i>						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC PROJECT PLAN	Have all team members reviewed the current MEC SOP 7? <i>Check Dates/Record of training.</i>				(P)
2	SOP	Are personnel performing demolition operations qualified in accordance with project documents?	F			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?				(P)
4	SOP	Has the SUXOS completed the mandatory notifications prior to conducting T demolition operations on site IAW project documents? (i.e., <i>Medical, Fire, Security,</i> )	F			(P),(I),(F)
5	SOP	Did the SUXOS ensure the SOP is enforced and the proper forms have been filled out and are in the explosive transport vehicle? (JV203A, JV203B, and DD 626 if required)	F			(P),(I),(F)
6	SOP	Did the UXOSO ensure that the MSDSs for corresponding explosives are on site and available?	F			(P), (I), (F)
7	SOP	Is appropriate personal and performance related equipment available for the proper conduct of demolition operations?	F			(P), (I), (F)

Revised June 2012

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
8	SOP	Did the UXOQC ensure that all site deliverables pertaining to demolition operations meet the requirements of project document and the SOP?	F			(P), (I), (F)
9	SOP	Is a current copy of demolition operations SOP, and all project field documents available to the Team when conducting site operations? Check dates.	F			(P), (I), (F)
10	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting demolition operations on site?	F			(P), (I), (F)
11	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct demolition operations?	F			(P), (I), (F)
12	SOP	Is the proper placarding available for the explosives being transported and is it being utilized?	F			(P), (I), (F)
13	SOP	Do individuals assigned to conduct demolition operations meet all the requirements of project documents and the site demolition SOP?	F			(P), (I), (F)
14	SOP	Are the PPE items required for demolition operations present and serviceable?	F			(P), (I), (F)
15	SOP	Are daily Tailgate Safety briefings conducted before demolition operations begin?	F			(P), (I), (F)
16	SOP	Has all general and site specific training been conducted prior to demolition operations on the project site?	F			(P), (I), (F)
17	SOP	Has all the equipment/vehicles to be utilized for conducting demolition operations on site been functionally inspected and certified operational?	F			(P), (I), (F)
18	SOP	Is a copy of the BATF License/Employee Possessor Form maintained in the project office and available in the vehicle transporting explosives to the demolition site?	F			(P), (I), (F)
19	SOP	Is a copy of the Demolition/disposal of MEC SOP, and JV form 542 Safety Audit Checklist section 17.0-17.8 maintained in the Demolition Team vehicle?	F			(P), (I), (F)

Revised June 2012

Punch List Items	
No.	

Conducted by: (b) (6)

Acknowledged by: \_\_\_\_\_

<b>Three Phase Quality Control Checklist</b> <b>Anomaly Resolution (MEC SOP 11)</b>						
Team: Team One, Two		Location: Castner Range		Date: 9 March 2016		
Personnel Present: ALL						
Phase of Inspection (Circle): <i>PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)</i>						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	SOP Sec 2.0	Has MEC SOP 11 been reviewed and approved by a Qualified Geophysicist?	P			(P)
2	SOP Sec 3.0	Do reacquisition team members meet the minimum qualification standards required for their position within the anomaly resolution team?	P			(P),(I),(F)
3	SOP Sec 4.0	Is a copy of an approved and current MEC SOP 11 available and have all anomaly resolution team members reviewed the SOP? <i>Check dates/Record of training.</i>	P			(P),(I),(F)
4	SOP Sec 4.0	Have anomaly resolution team members, in addition to initial site-specific training, received training in the use of survey and detection instruments required for anomaly resolution operations, and have they been certified with the instruments in the IVS?	P			(P),(I),(F)
5	SOP Sec 4.0	Have anomaly resolution team members received training on methodology, data requirements, and field documentation protocol, and have they been provided an overview of the project approach and how the their tasks integrate into the overall program?	P			(P),(I),(F)



Item	Ref.	Inspection Point	Yes	No	N/A	Comments
6	SOP Sec 4.0	Have the Project Geophysicist and Data Manager (DM) provided reacquisition team members an overview of the internal quality control (QC) procedures required for this task and project reporting requirements?	P			(P), (I), (F)
7	SOP Sec 5.1	Are the required equipment items and associated components required for anomaly resolution present on site and serviceable?	P			(P), (I), (F)
8	SOP Sec 5.2	Are anomaly resolution teams knowledgeable and proficient in the general procedures required for anomaly resolution?				(I), (F)
9	SOP Sec 6.0	Are QC checks, to include ensuring positioning information and sensor responses, valid and repeatable, performed and documented?				(I), (F)

Punch List Items	
No.	

(b) (6)

Conducted by: \_\_\_\_\_

Acknowledged by: \_\_\_\_\_

<div>Three Phase Quality Control Checklist</div> <div>Anomaly Resolution (MEC SOP 11)</div>						
Team: Team One, Two		Location: Castner Range		Date: 16 March 2016		
Personnel Present: ALL						
Phase of Inspection (Circle): <i>PREPARATORY (P)</i> ; <i>INITIAL (I)</i> ; <i>FOLLOW-UP (F)</i>						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	SOP Sec 2.0	Has MEC SOP 11 been reviewed and approved by a Qualified Geophysicist?				(P)
2	SOP Sec 3.0	Do reacquisition team members meet the minimum qualification standards required for their position within the anomaly resolution team?	I			(P),(I),(F)
3	SOP Sec 4.0	Is a copy of an approved and current MEC SOP 11 available and have all anomaly resolution team members reviewed the SOP? <i>Check dates/Record of training.</i>	I			(P),(I),(F)
4	SOP Sec 4.0	Have anomaly resolution team members, in addition to initial site-specific training, received training in the use of survey and detection instruments required for anomaly resolution operations, and have they been certified with the instruments in the IVS?	I			(P),(I),(F)
5	SOP Sec 4.0	Have anomaly resolution team members received training on methodology, data requirements, and field documentation protocol, and have they been provided an overview of the project approach and how the their tasks integrate into the overall program?	I			(P),(I),(F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
6	SOP Sec 4.0	Have the Project Geophysicist and Data Manager (DM) provided reacquisition team members an overview of the internal quality control (QC) procedures required for this task and project reporting requirements?	I			(P), (I), (F)
7	SOP Sec 5.1	Are the required equipment items and associated components required for anomaly resolution present on site and serviceable?	I			(P), (I), (F)
8	SOP Sec 5.2	Are anomaly resolution teams knowledgeable and proficient in the general procedures required for anomaly resolution?	I			(I), (F)
9	SOP Sec 6.0	Are QC checks, to include ensuring positioning information and sensor responses, valid and repeatable, performed and documented?	I			(I), (F)

Punch List Items	
No.	

Conducted by: (b) (6)

Acknowledged by: \_\_\_\_\_

<div>Three Phase Quality Control Checklist</div> <div>Anomaly Resolution (MEC SOP 11)</div>						
Team: Team One, Two		Location: Castner Range		Date: 01 April 2016		
Personnel Present: ALL						
Phase of Inspection (Circle): <i>PREPARATORY (P);      INITIAL (I);      FOLLOW-UP (F)</i>						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	SOP Sec 2.0	Has MEC SOP 11 been reviewed and approved by a Qualified Geophysicist?				(P)
2	SOP Sec 3.0	Do reacquisition team members meet the minimum qualification standards required for their position within the anomaly resolution team?	F			(P),(I),(F)
3	SOP Sec 4.0	Is a copy of an approved and current MEC SOP 11 available and have all anomaly resolution team members reviewed the SOP? <i>Check dates/Record of training.</i>	F			(P),(I),(F)
4	SOP Sec 4.0	Have anomaly resolution team members, in addition to initial site-specific training, received training in the use of survey and detection instruments required for anomaly resolution operations, and have they been certified with the instruments in the IVS?	F			(P),(I),(F)
5	SOP Sec 4.0	Have anomaly resolution team members received training on methodology, data requirements, and field documentation protocol, and have they been provided an overview of the project approach and how the their tasks integrate into the overall program?	F			(P),(I),(F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
6	SOP Sec 4.0	Have the Project Geophysicist and Data Manager (DM) provided reacquisition team members an overview of the internal quality control (QC) procedures required for this task and project reporting requirements?	F			(P), (I), (F)
7	SOP Sec 5.1	Are the required equipment items and associated components required for anomaly resolution present on site and serviceable?	F			(P), (I), (F)
8	SOP Sec 5.2	Are anomaly resolution teams knowledgeable and proficient in the general procedures required for anomaly resolution?	F			(I), (F)
9	SOP Sec 6.0	Are QC checks, to include ensuring positioning information and sensor responses, valid and repeatable, performed and documented?	F			(I), (F)

Punch List Items	
No.	

(b) (6)

Conducted by

Acknowledged by: \_\_\_\_\_

SIGN IN FOR ANOMALY RESOLUTION

CASTNER RANGE

Name	Team	Signature
(b) (6)		(b) (6)
	DGM	
	T2	
	2	
	2	
	1	
	1	
	2	
	2	
	7	
	1	
	1	
	1	
	2	
	2	

Class given by: (b) (6)

Date: 3/10/16



Three Phase Quality Control Checklist						
Anomaly Avoidance (MEC SOP 2)						
Team: Two		Location: Castner Range		Date: 3/8/16		
Personnel Present: SEE TEAM SIGN IN LIST						
Phase of Inspection (Circle): PREPARATORY (P) INITIAL (I): FOLLOW-UP (F)						
Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC QAPP	Have all team members reviewed the current MEC SOP2? <i>Check Dates/Record of training.</i>	P			(P)
2	SOP	Are personnel performing anomaly avoidance qualified in accordance with project documents?	P			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?	P			(P)
4	SOP	Are the PPE items required for anomaly avoidance present and serviceable?	P			(P),(I),(F)
5	SOP	Is the SUXOS ensuring the SOP is enforced and the anomaly avoidance operations are being conducted properly?	P			(P),(I),(F)
6	SOP	Is a current copy of the anomaly avoidance SOP, and all project field documents available to the Team when conducting site operations? <i>Check dates.</i>	P			(P),(I),(F)
7	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting anomaly avoidance on site?	P			(P),(I),(F)
8	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct anomaly avoidance?	P			(P),(I),(F)
9	SOP	Are daily Tailgate Safety briefings conducted before anomaly avoidance begins to include the personnel being escorted?	P			(P),(I),(F)
10	SOP	Has all the equipment/vehicles to be utilized for conducting inspection and disposal of MD been functionally inspected and certified operational?	P			(P),(I),(F)
11	SOP	Is a copy of the Anomaly Avoidance SOP maintained in the Team vehicle?	P			(P),(I),(F)



Punch List Items	
No.	

Conducted by: (b) (6)

Acknowledged by: \_\_\_\_\_

<b>Three Phase Quality Control Checklist</b> <b>Anomaly Avoidance (MEC SOP 2)</b>						
Team: One		Location: Castner Range		Date: 3/8/16		
Personnel Present: SEE TEAM SIGN IN LIST						
Phase of Inspection (Circle): PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)						
<b>Checklist</b>						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC QAPP	Have all team members reviewed the current MEC SOP2? <i>Check Dates/Record of training.</i>	P			(P)
2	SOP	Are personnel performing anomaly avoidance qualified in accordance with project documents?	P			(P), (I), (F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?	P			(P)
4	SOP	Are the PPE items required for anomaly avoidance present and serviceable?	P			(P), (I), (F)
5	SOP	Is the SUXOS ensuring the SOP is enforced and the anomaly avoidance operations are being conducted properly?	P			(P), (I), (F)
6	SOP	Is a current copy of the anomaly avoidance SOP, and all project field documents available to the Team when conducting site operations? <i>Check dates.</i>	P			(P), (I), (F)
7	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting anomaly avoidance on site?	P			(P), (I), (F)
8	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct anomaly avoidance?	P			(P), (I), (F)
9	SOP	Are daily Tailgate Safety briefings conducted before anomaly avoidance begins to include the personnel being escorted?	P			(P), (I), (F)
10	SOP	Has all the equipment/vehicles to be utilized for conducting inspection and disposal of MD been functionally inspected and certified operational?	P			(P), (I), (F)
11	SOP	Is a copy of the Anomaly Avoidance SOP maintained in the Team vehicle?	P			(P), (I), (F)

Punch List Items	
No.	

Conducted by: (b) (6)

Acknowledged by: \_\_\_\_\_

SIGN IN ANOMALY AVOIDANCE CLASS

Castner Range

(b) (6)	<b>Team #</b> 1 1 2 1 1 1 1 2 2 2 2 2 2	(b) (6)
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Class given by (b) (6) Date: 3/8/16

<b>Three Phase Quality Control Checklist</b> <b>Anomaly Avoidance (MEC SOP 2)</b>						
Team: ONE, TWO		Location: Castner Range		Date: 03/22/2016		
Personnel Present: ALL						
Phase of Inspection (Circle): <i>PREPARATORY (P)</i> ; <u>INITIAL (I)</u> ; <i>FOLLOW-UP (F)</i>						
<b>Checklist</b>						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC QAPP	Have all team members reviewed the current MEC SOP2? <i>Check Dates/Record of training.</i>				(P)
2	SOP	Are personnel performing anomaly avoidance qualified in accordance with project documents?	I			(P),(I),(F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?				(P)
4	SOP	Are the PPE items required for anomaly avoidance present and serviceable?	I			(P),(I),(F)
5	SOP	Is the SUXOS ensuring the SOP is enforced and the anomaly avoidance operations are being conducted properly?	I			(P),(I),(F)
6	SOP	Is a current copy of the anomaly avoidance SOP, and all project field documents available to the Team when conducting site operations? <i>Check dates.</i>	I			(P),(I),(F)
7	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting anomaly avoidance on site?	I			(P),(I),(F)
8	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct anomaly avoidance?	I			(P),(I),(F)
9	SOP	Are daily Tailgate Safety briefings conducted before anomaly avoidance begins to include the personnel being escorted?	I			(P),(I),(F)
10	SOP	Has all the equipment/vehicles to be utilized for conducting inspection and disposal of MD been functionally inspected and certified operational?	I			(P),(I),(F)
11	SOP	Is a copy of the Anomaly Avoidance SOP maintained in the Team vehicle?	I			(P),(I),(F)

Punch List Items	
No.	

Conducted by: (b) (6)

Acknowledged by: \_\_\_\_\_

<b>Three Phase Quality Control Checklist</b> <b>Anomaly Avoidance (MEC SOP 2)</b>						
Team: ONE, TWO		Location: Castner Range		Date: 11 April 2016		
Personnel Present: ALL						
Phase of Inspection (Circle): <i>PREPARATORY (P)</i> ; <i>INITIAL (I)</i> ; <i>FOLLOW-UP (F)</i>						
<b>Checklist</b>						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	MEC QAPP	Have all team members reviewed the current MEC SOP2? <i>Check Dates/Record of training.</i>				(P)
2	SOP	Are personnel performing anomaly avoidance qualified in accordance with project documents?	F			(P), (I), (F)
3	SOP	Has the PM ensured the required manpower and equipment is available to safely and properly execute this SOP?				(P)
4	SOP	Are the PPE items required for anomaly avoidance present and serviceable?	F			(P), (I), (F)
5	SOP	Is the SUXOS ensuring the SOP is enforced and the anomaly avoidance operations are being conducted properly?	F			(P), (I), (F)
6	SOP	Is a current copy of the anomaly avoidance SOP, and all project field documents available to the Team when conducting site operations? <i>Check dates.</i>	F			(P), (I), (F)
7	SOP	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to conducting anomaly avoidance on site?	F			(P), (I), (F)
8	SOP	Are there sufficient range vehicles available, with appropriate safety devices installed, to conduct anomaly avoidance?	F			(P), (I), (F)
9	SOP	Are daily Tailgate Safety briefings conducted before anomaly avoidance begins to include the personnel being escorted?	F			(P), (I), (F)
10	SOP	Has all the equipment/vehicles to be utilized for conducting inspection and disposal of MD been functionally inspected and certified operational?	F			(P), (I), (F)
11	SOP	Is a copy of the Anomaly Avoidance SOP maintained in the Team vehicle?	F			(P), (I), (F)



Punch List Items	
No.	

Conducted by: (b) (6) acknowledged by: \_\_\_\_\_

# **Three Phase Quality Control Checklist** **Analog Transect Operations (MEC SOP 3)**

Team: **ONE**

Location: **CASNER RANGE**

Date: **3/9/16**

Personnel Present: **SEE TEAM SIGN IN LIST**

Phase of Inspection (Circle): **PREPARATORY (P)** INITIAL (I); FOLLOW-UP (F)

## **Checklist**

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	TMP	Have all team members reviewed the current MEC SOP 3? <i>Check Dates/Record of training.</i>	P			(P)
2	MEC SOP 3 Sec 3.1	Are personnel performing Analog Transect Operations qualified in accordance with the QAPP?	P			(P), (I), (F)
3	MEC SOP 3 Sec 3.2	Was the Coordination Meeting held prior to commencing Analog Transect Operations?	P			(P)
4	MEC SOP 3 Sec 3.2	Was a Public Meeting held prior to commencing Analog Transect Operations?	P			(P)
5	MEC SOP 3 Sec 3.3	Has the Project Manager or his representative completed the mandatory notifications prior to conducting field operations? (i.e., Medical, Fire, Security, City Council)	P			(P), (I), (F)
6	MEC SOP 3 Sec 3.4	Was an Exclusion Zone determined and established by the SUXOS prior to conducting Analog Transect Operations?	P			(P), (I), (F)
7	MEC SOP 3 Sec 3.4	Are proper visitor access and control procedures known and followed?	P			(P), (I), (F)
8	MEC SOP 3 Sec 3.4	Are Team Separation Distances observed in accordance with ESS requirements?	P			(P), (I), (F)
9	MEC SOP 3 3.5	Do the UXO Teams meet the Analog Transect personnel requirements?	P			(P), (I), (F)
10	MEC SOP 3 Sec 3.6, ATT 2.	Is appropriate personal and performance related equipment available for the proper conduct of MEC/MPPEH S Analog Transect Operations?	P			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
11	TMP, MEC SOP 3 Sec 3.6.2	Have all personnel assigned to the Analog Transect team shown proficiency with detection equipment by passing detection heads over one or more metal items on the ground surface or buried in the instrument test area prior to the start of surface clearance operations?	P			(P), (I), (F)
12	TMP, MEC SOP 3 Sec 3.6.3	Is a current copy of the Project Plan, MEC SOP 3, TMP, Explosive Safety Submission, AP/SSHP, and ordnance identification publications available to the Team when conducting field operations?	P			(P),(I),(F)
13	MEC SOP 3 Sec 3.7	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to the conduct of operations?	P			(P), (I), (F)
14	MEC SOP 3 Sec 3.12	Have all members of the Analog Transect Team attended site-specific orientation?	P			(P), (I), (F)
15	MEC SOP 3 Sec 3.10	Are emergency medical support administrative, notification, training, and equipment requirements observed for Analog Transect Operations in accordance with MEC SOP 3?	P			(P), (I), (F)

<u>Item</u>	<u>Ref</u>	<u>Inspection Point</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Comments</u>
16	MEC SOP 3 Sec 3.12	Are the PPE items required for Analog Transect Operations present and serviceable in accordance with MEC SOP 3?	P			(P), (I), (F)
17	MEC SOP 3 Sec 3.13	Was a site-specific orientation provided to all personnel assigned to the Analog Transect teams covering, at a minimum, the topics specified in MEC SOP 3 and documented on a Course Attendance Sheet?	P			(P), (I), (F)
18	MEC SOP 3 Sec 3.13	Are daily briefings conducted covering the topics specified in MEC SOP 3?	P			(P), (I), (F)
19	MEC SOP 3 Sec 3.13	Has all general and site specific training been conducted prior to the performance of Analog Transect operations?	P			(P), (I), (F)
20	MEC SOP 3 Sec 3.13	Has all the equipment/vehicles utilized by the Analog Transect team been functionally inspected and certified?	P			(P), (I), (F)
21	MEC SOP 3 Sec 3.14	Was an Exclusion Zone (EZ) determined and established prior to the conduct of Analog transect operations?	P			(P), (I), (F)
22	MEC SOP 3 Sec 3.14	Does the Analog Transect Team composition meet personnel work requirements?	P			(P), (I), (F)
23	MEC SOP 3 Sec 3.15	Has the UXO Team Leader contacted the SUXOS prior to analog transect operations and received approval to commence?				(I), (F)
24	MEC SOP 3 Sec 3.15	Did the Team Leader ensure conduct of analog transect operations in accordance with SOP provisions (data collection, MRS boundaries and anomaly marking etc.)?				(I), (F)



Item	Ref.	Inspection Point	Yes	No	N/A	Comments
25	MEC SOP 3 Sec 3.15	Did only UXO qualified personnel investigate surface/partially buried anomalies to determine status (MEC, MPPEH, Non-Munitions Debris)?				(I), (F)
26	TMP, MEC SOP 3 Sec 3.15	Were approved procedures for located MEC/MPPEH items followed (data collection, data reporting, item storage, item disposition)?				(I), (F)
27	MEC SOP 3 Sec 3.16	Were approved procedures for munitions with unknown fillers followed (work cessation, area evacuation, area security necessary coordination, site turnover)?				(I), (F)
28	MEC SOP 3 Sec 3.17	Were appropriate processing procedures followed for hazardous and non-hazardous material other than MPPEH (Metal Debris, Chemicals, Other Hazards)?				(I), (F)
29	MEC SOP 3 Sec 3.19	When required by the MC PROJECT PLAN, are soil samples taken in accordance with SOP provisions (UXO escort, magnetometer check of sampling location, movement to alternate location as necessary)?				(I), (F)
30	MEC SOP 3 ATT 1	Did the SUXOS perform pre-clearance requirements identified on and properly fill out his/her portion of the MEC Daily Activities Checklist (briefing, utility and danger notification, work assignment)?				(I), (F)
31	MEC SOP 3 ATT 1	Did the Team Leader perform pre- and post-clearance requirements identified on and properly fill out his/her portion of the MEC Daily Activities Checklist (work data, vehicle/equipment inspection, tailgate safety briefing, work start/stop notifications, site restoration, etc.)?				(I), (F)
32	MEC SOP 3 ATT 2	Did the Team Leader ensure all equipment was available prior to deployment to the field site in accordance with the MEC Equipment Checklist?				(I), (F)
33	MEC SOP 3 ATT 1	Did the Team Leader ensure vehicle inspection activities included the utilization and completion of the Vehicle/Heavy Equipment Inspection Checklist?				(I), (F)

Punch List Items	
No.	

Conducted by: AL ROWLER Acknowledged by: \_\_\_\_\_

**Three Phase Quality Control Checklist**  
**Analog Transect Operations (MEC SOP 3)**

Team: TWO Location: CASIMIR RANGE Date: 3/9/16

Personnel Present: SEE TEAM SIGN IN LIST

Phase of Inspection (Circle): PREPARATORY (P) INITIAL (I); FOLLOW-UP (F)

Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	TMP	Have all team members reviewed the current MEC SOP 3? <i>Check Dates/Record of training.</i>	P			(P)
2	MEC SOP 3 Sec 3.1	Are personnel performing Analog Transect Operations qualified in accordance with the QAPP?	P			(P),(I),(F)
3	MEC SOP 3 Sec 3.2	Was the Coordination Meeting held prior to commencing Analog Transect Operations?	P			(P)
4	MEC SOP 3 Sec 3.2	Was a Public Meeting held prior to commencing Analog Transect Operations?	P			(P)
5	MEC SOP 3 Sec 3.3	Has the Project Manager or his representative completed the mandatory notifications prior to conducting field operations? (i.e., <i>Medical, Fire, Security, City Council</i> )	P			(P),(I),(F)
6	MEC SOP 3 Sec 3.4	Was an Exclusion Zone determined and established by the SUXOS prior to conducting Analog Transect Operations?	P			(P), (I), (F)
7	MEC SOP 3 Sec 3.4	Are proper visitor access and control procedures known and followed?	P			(P),(I),(F)
8	MEC SOP 3 Sec 3.4	Are Team Separation Distances observed in accordance with ESS requirements?	P			(P),(I),(F)
9	MEC SOP 3 3.5	Do the UXO Teams meet the Analog Transect personnel requirements?	P			(P), (I), (F)
10	MEC SOP 3 Sec 3.6, ATT 2,	Is appropriate personal and performance related equipment available for the proper conduct of MEC/MPPEH S Analog Transect Operations?	P			(P), (I), (F)



Item	Ref.	Inspection Point	Yes	No	N/A	Comments
11	TMP, MEC SOP 3 Sec 3.6.2	Have all personnel assigned to the Analog Transect team shown proficiency with detection equipment by passing detection heads over one or more metal items on the ground surface or buried in the instrument test area prior to the start of surface clearance operations?	P			(P), (I), (F)
12	TMP, MEC SOP 3 Sec 3.6.3	Is a current copy of the Project Plan, MEC SOP 3, TMP, Explosive Safety Submission, AP/SSHP, and ordnance identification publications available to the Team when conducting field operations?	P			(P), (I), (F)
13	MEC SOP 3 Sec 3.7	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to the conduct of operations?	P			(P), (I), (F)
14	MEC SOP 3 Sec 3.12	Have all members of the Analog Transect Team attended site-specific orientation?	P			(P), (I), (F)
15	MEC SOP 3 Sec 3.10	Are emergency medical support administrative, notification, training, and equipment requirements observed for Analog Transect Operations in accordance with MEC SOP 3?	P			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
16	MEC SOP 3 Sec 3.12	Are the PPE items required for Analog Transect Operations present and serviceable in accordance with MEC SOP 3?	P			(P), (I), (F)
17	MEC SOP 3 Sec 3.13	Was a site-specific orientation provided to all personnel assigned to the Analog Transect teams covering, at a minimum, the topics specified in MEC SOP 3 and documented on a Course Attendance Sheet?	P			(P), (I), (F)
18	MEC SOP 3 Sec 3.13	Are daily briefings conducted covering the topics specified in MEC SOP 3?	P			(P), (I), (F)
19	MEC SOP 3 Sec 3.13	Has all general and site specific training been conducted prior to the performance of Analog Transect operations?	P			(P), (I), (F)
20	MEC SOP 3 Sec 3.13	Has all the equipment/vehicles utilized by the Analog Transect team been functionally inspected and certified?	P			(P), (I), (F)
21	MEC SOP 3 Sec 3.14	Was an Exclusion Zone (EZ) determined and established prior to the conduct of Analog transect operations?	P			(P), (I), (F)
22	MEC SOP 3 Sec 3.14	Does the Analog Transect Team composition meet personnel work requirements?	P			(P), (I), (F)
23	MEC SOP 3 Sec 3.15	Has the UXO Team Leader contacted the SUXOS prior to analog transect operations and received approval to commence?				(I), (F)
24	MEC SOP 3 Sec 3.15	Did the Team Leader ensure conduct of analog transect operations in accordance with SOP provisions (data collection, MRS boundaries and anomaly marking etc.)?				(I), (F)

<u>Item</u>	<u>Ref</u>	<u>Inspection Point</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Comments</u>
25	MEC SOP 3 Sec 3.15	Did only UXO qualified personnel investigate surface/partially buried anomalies to determine status (MEC, MPPEH, Non-Munitions Debris)?				(I), (F)
26	TMP, MEC SOP 3 Sec 3.15	Were approved procedures for located MEC/MPPEH items followed (data collection, data reporting, item storage, item disposition)?				(I), (F)
27	MEC SOP 3 Sec 3.16	Were approved procedures for munitions with unknown fillers followed (work cessation, area evacuation, area security necessary coordination, site turnover)?				(I), (F)
28	MEC SOP 3 Sec 3.17	Were appropriate processing procedures followed for hazardous and non-hazardous material other than MPPEH (Metal Debris, Chemicals, Other Hazards)?				(I), (F)
29	MEC SOP 3 Sec 3.19	When required by the MC PROJECT PLAN, are soil samples taken in accordance with SOP provisions (UXO escort, magnetometer check of sampling location, movement to alternate location as necessary)?				(I), (F)
30	MEC SOP 3 ATT 1	Did the SUXOS perform pre-clearance requirements identified on and properly fill out his/her portion of the MEC Daily Activities Checklist (briefing, utility and danger notification, work assignment)?				(I), (F)
31	MEC SOP 3 ATT 1	Did the Team Leader perform pre- and post-clearance requirements identified on and properly fill out his/her portion of the MEC Daily Activities Checklist (work data, vehicle/equipment inspection, tailgate safety briefing, work start/stop notifications, site restoration, etc.)?				(I), (F)
32	MEC SOP 3 ATT 2	Did the Team Leader ensure all equipment was available prior to deployment to the field site in accordance with the MEC Equipment Checklist?				(I), (F)
33	MEC SOP 3 ATT 1	Did the Team Leader ensure vehicle inspection activities included the utilization and completion of the Vehicle/Heavy Equipment Inspection Checklist?				(I), (F)

Punch List Items	
No.	

Conducted by: \_\_\_\_\_ Acknowledged by: \_\_\_\_\_

SIGN IN ANALOG TRANSECTS MEC STANDARD  
OPERATING PROCEDURES CLASS

CASTNER RANGE

(b) (6)		(b) (6)	
		D6m	
		T2	
		2	
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Class given by (b) (6) Date: 3/10/16



# **Three Phase Quality Control Checklist** **Analog Transect Operations (MEC SOP 3)**

Team: <u>ONE</u>	Location: <u>Castner Range</u>	Date: <u>21 March 2016</u>
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Personnel Present: TEAM ONE

Phase of Inspection (Circle):    *PREPARATORY (P)*    **INITIAL (I)**    *FOLLOW-UP (F)*

Checklist						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	TMP	Have all team members reviewed the current MEC SOP 3? <i>Check Dates/Record of training</i>	✓			(P)
2	MEC SOP 3 Sec 3.1	Are personnel performing Analog Transect Operations qualified in accordance with the QAPP?	↓			(P),(I),(F)
3	MEC SOP 3 Sec 3.2	Was the Coordination Meeting held prior to commencing Analog Transect Operations?	✓			(P)
4	MEC SOP 3 Sec 3.2	Was a Public Meeting held prior to commencing Analog Transect Operations?	✓			(P)
5	MEC SOP 3 Sec 3.3	Has the Project Manager or his representative completed the mandatory notifications prior to conducting field operations? (i.e., Medical, Fire, Security, City Council)	↓			(P),(I),(F)
6	MEC SOP 3 Sec 3.4	Was an Exclusion Zone determined and established by the SUXOS prior to conducting Analog Transect Operations?	↓			(P), (I), (F)
7	MEC SOP 3 Sec 3.4	Are proper visitor access and control procedures known and followed?	↓			(P),(I),(F)
8	MEC SOP 3 Sec 3.4	Are Team Separation Distances observed in accordance with ESS requirements?	↓			(P),(I),(F)
9	MEC SOP 3 3.5	Do the UXO Teams meet the Analog Transect personnel requirements?	↓			(P), (I), (F)
10	MEC SOP 3 Sec 3.6, ATT 2,	Is appropriate personal and performance related equipment available for the proper conduct of MEC/MPPEH S Analog Transect Operations?	↓			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
11	TMP, MEC SOP 3 Sec 3.6.2	Have all personnel assigned to the Analog Transect team shown proficiency with detection equipment by passing detection heads over one or more metal items on the ground surface or buried in the instrument test area prior to the start of surface clearance operations?	↓			(P), (I), (F)
12	TMP, MEC SOP 3 Sec 3.6.3	Is a current copy of the Project Plan, MEC SOP 3, TMP, Explosive Safety Submission, AP/SSHP, and ordnance identification publications available to the Team when conducting field operations?	↓			(P), (I), (F)
13	MEC SOP 3 Sec 3.7	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to the conduct of operations?	↓			(P), (I), (F)
14	MEC SOP 3 Sec 3.12	Have all members of the Analog Transect Team attended site-specific orientation?	↓			(P), (I), (F)
15	MEC SOP 3 Sec 3.10	Are emergency medical support administrative, notification, training, and equipment requirements observed for Analog Transect Operations in accordance with MEC SOP 3?	↓			(P), (I), (F)



<u>Item</u>	<u>Ref</u>	<u>Inspection Point</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Comments</u>
16	MEC SOP 3 Sec 3.12	Are the PPE items required for Analog Transect Operations present and serviceable in accordance with MEC SOP 3?	↓			(P), (I), (F)
17	MEC SOP 3 Sec 3.13	Was a site-specific orientation provided to all personnel assigned to the Analog Transect teams covering, at a minimum, the topics specified in MEC SOP 3 and documented on a Course Attendance Sheet?	↓			(P), (I), (F)
18	MEC SOP 3 Sec 3.13	Are daily briefings conducted covering the topics specified in MEC SOP 3?	↓			(P), (I), (F)
19	MEC SOP 3 Sec 3.13	Has all general and site specific training been conducted prior to the performance of Analog Transect operations?	↓			(P), (I), (F)
20	MEC SOP 3 Sec 3.13	Has all the equipment/vehicles utilized by the Analog Transect team been functionally inspected and certified?	↓			(P), (I), (F)
21	MEC SOP 3 Sec 3.14	Was an Exclusion Zone (EZ) determined and established prior to the conduct of Analog transect operations?	↓			(P), (I), (F)
22	MEC SOP 3 Sec 3.14	Does the Analog Transect Team composition meet personnel work requirements?	↓			(P), (I), (F)
23	MEC SOP 3 Sec 3.15	Has the UXO Team Leader contacted the SUXOS prior to analog transect operations and received approval to commence?	↓			(I), (F)
24	MEC SOP 3 Sec 3.15	Did the Team Leader ensure conduct of analog transect operations in accordance with SOP provisions (data collection, MRS boundaries and anomaly marking etc.)?	↓			(I), (F)

<u>Item</u>	<u>Ref.</u>	<u>Inspection Point</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Comments</u>
25	MEC SOP 3 Sec 3.15	Did only UXO qualified personnel investigate surface/partially buried anomalies to determine status (MEC, MPPEH, Non-Munitions Debris)?	↓			(I), (F)
26	TMP, MEC SOP 3 Sec 3.15	Were approved procedures for located MEC/MPPEH items followed (data collection, data reporting, item storage, item disposition)?	↓			(I), (F)
27	MEC SOP 3 Sec 3.16	Were approved procedures for munitions with unknown fillers followed (work cessation, area evacuation, area security necessary coordination, site turnover)?	↓			(I), (F)
28	MEC SOP 3 Sec 3.17	Were appropriate processing procedures followed for hazardous and non-hazardous material other than MPPEH (Metal Debris, Chemicals, Other Hazards)?	↓			(I), (F)
29	MEC SOP 3 Sec 3.19	When required by the MC PROJECT PLAN, are soil samples taken in accordance with SOP provisions (UXO escort, magnetometer check of sampling location, movement to alternate location as necessary)?	↓			(I), (F)
30	MEC SOP 3 ATT 1	Did the SUXOS perform pre-clearance requirements identified on and properly fill out his/her portion of the MEC Daily Activities Checklist (briefing, utility and danger notification, work assignment)?	↓			(I), (F)
31	MEC SOP 3 ATT 1	Did the Team Leader perform pre- and post-clearance requirements identified on and properly fill out his/her portion of the MEC Daily Activities Checklist (work data, vehicle/equipment inspection, tailgate safety briefing, work start/stop notifications, site restoration, etc.)?	↓			(I), (F)
32	MEC SOP 3 ATT 2	Did the Team Leader ensure all equipment was available prior to deployment to the field site in accordance with the MEC Equipment Checklist?	↓			(I), (F)
33	MEC SOP 3 ATT 1	Did the Team Leader ensure vehicle inspection activities included the utilization and completion of the Vehicle/Heavy Equipment Inspection Checklist?	↓			(I), (F)

Punch List Items	
No.	

Conducted by: 

(b) (6)

nowledged by: \_\_\_\_\_



### Three Phase Quality Control Checklist Analog Transect Operations (MEC SOP 3)

Team: <u>ONE</u>	Location: <u>Castner Range</u>	Date: <u>4 April 2016</u>				
Personnel Present: <u>TEAM ONE</u>						
Phase of Inspection (Circle): <u>PREPARATORY (P)</u> , <u>INITIAL (I)</u> , <u>FOLLOW-UP (F)</u>						
<b>Checklist</b>						
Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	TMP	Have all team members reviewed the current MEC SOP 3? <i>Check Dates/Record of training.</i>	.			(P)
2	MEC SOP 3 Sec 3.1	Are personnel performing Analog Transect Operations qualified in accordance with the QAPP?	<u>F</u>			(P), (I), (F)
3	MEC SOP 3 Sec 3.2	Was the Coordination Meeting held prior to commencing Analog Transect Operations?	.			(P)
4	MEC SOP 3 Sec 3.2	Was a Public Meeting held prior to commencing Analog Transect Operations?	.			(P)
5	MEC SOP 3 Sec 3.3	Has the Project Manager or his representative completed the mandatory notifications prior to conducting field operations? (i.e., Medical, Fire, Security, City Council)	<u>F</u>			(P), (I), (F)
6	MEC SOP 3 Sec 3.4	Was an Exclusion Zone determined and established by the SUXOS prior to conducting Analog Transect Operations?	<u>F</u>			(P), (I), (F)
7	MEC SOP 3 Sec 3.4	Are proper visitor access and control procedures known and followed?	<u>F</u>			(P), (I), (F)
8	MEC SOP 3 Sec 3.4	Are Team Separation Distances observed in accordance with ESS requirements?	<u>F</u>			(P), (I), (F)
9	MEC SOP 3 3.5	Do the UXO Teams meet the Analog Transect personnel requirements?	<u>F</u>			(P), (I), (F)
10	MEC SOP 3 Sec 3.6, ATT 2.	Is appropriate personal and performance related equipment available for the proper conduct of MEC/MPPEH S Analog Transect Operations?	<u>F</u>			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
11	TMP, MEC SOP 3 Sec 3.6.2	Have all personnel assigned to the Analog Transect team shown proficiency with detection equipment by passing detection heads over one or more metal items on the ground surface or buried in the instrument test area prior to the start of surface clearance operations?	<u>F</u>			(P), (I), (F)
12	TMP, MEC SOP 3 Sec 3.6.3	Is a current copy of the Project Plan, MEC SOP 3, TMP, Explosive Safety Submission, AP/SSHP, and ordnance identification publications available to the Team when conducting field operations?	<u>F</u>			(P), (I), (F)
13	MEC SOP 3 Sec 3.7	Have sufficient communications been established to enable team/field personnel to communicate with the Site Field Office and emergency response agencies prior to the conduct of operations?	<u>F</u>			(P), (I), (F)
14	MEC SOP 3 Sec 3.12	Have all members of the Analog Transect Team attended site-specific orientation?	<u>F</u>			(P), (I), (F)
15	MEC SOP 3 Sec 3.10	Are emergency medical support administrative, notification, training, and equipment requirements observed for Analog Transect Operations in accordance with MEC SOP 3?	<u>F</u>			(P), (I), (F)

<u>Item</u>	<u>Ref</u>	<u>Inspection Point</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Comments</u>
16	MEC SOP 3 Sec 3.12	Are the PPE items required for Analog Transect Operations present and serviceable in accordance with MEC SOP 3?	<u>F</u>			(P), (I), (F)
17	MEC SOP 3 Sec 3.13	Was a site-specific orientation provided to all personnel assigned to the Analog Transect teams covering, at a minimum, the topics specified in MEC SOP 3 and documented on a Course Attendance Sheet?	<u>F</u>			(P), (I), (F)
18	MEC SOP 3 Sec 3.13	Are daily briefings conducted covering the topics specified in MEC SOP 3?	<u>F</u>			(P), (I), (F)
19	MEC SOP 3 Sec 3.13	Has all general and site specific training been conducted prior to the performance of Analog Transect operations?	<u>F</u>			(P), (I), (F)
20	MEC SOP 3 Sec 3.13	Has all the equipment/vehicles utilized by the Analog Transect team been functionally inspected and certified?	<u>F</u>			(P), (I), (F)
21	MEC SOP 3 Sec 3.14	Was an Exclusion Zone (EZ) determined and established prior to the conduct of Analog transect operations?	<u>F</u>			(P), (I), (F)
22	MEC SOP 3 Sec 3.14	Does the Analog Transect Team composition meet personnel work requirements?	<u>F</u>			(P), (I), (F)
23	MEC SOP 3 Sec 3.15	Has the UXO Team Leader contacted the SUXOS prior to analog transect operations and received approval to commence?	<u>F</u>			(I), (F)
24	MEC SOP 3 Sec 3.15	Did the Team Leader ensure conduct of analog transect operations in accordance with SOP provisions (data collection, MRS boundaries and anomaly marking etc.)?	<u>F</u>			(I), (F)



<u>Item</u>	<u>Ref</u>	<u>Inspection Point</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Comments</u>
25	MEC SOP 3 Sec 3.15	Did only UXO qualified personnel investigate surface/partially buried anomalies to determine status (MEC, MPPEH, Non-Munitions Debris)?	<u>F</u>			(I), (F)
26	TMP, MEC SOP 3 Sec 3.15	Were approved procedures for located MEC/MPPEH items followed (data collection, data reporting, item storage, item disposition)?	<u>F</u>			(I), (F)
27	MEC SOP 3 Sec 3.16	Were approved procedures for munitions with unknown filters followed (work cessation, area evacuation, area security necessary coordination, site turnover)?	<u>F</u>			(I), (F)
28	MEC SOP 3 Sec 3.17	Were appropriate processing procedures followed for hazardous and non-hazardous material other than MPPEH (Metal Debris, Chemicals, Other Hazards)?	<u>F</u>			(I), (F)
29	MEC SOP 3 Sec 3.19	When required by the MC PROJECT PLAN, are soil samples taken in accordance with SOP provisions (UXO escort, magnetometer check of sampling location, movement to alternate location as necessary)?	<u>F</u>			(I), (F)
30	MEC SOP 3 ATT 1	Did the SUXOS perform pre-clearance requirements identified on and properly fill out his/her portion of the MEC Daily Activities Checklist (briefing, utility and danger notification, work assignment)?	<u>F</u>			(I), (F)
31	MEC SOP 3 ATT 1	Did the Team Leader perform pre- and post-clearance requirements identified on and properly fill out his/her portion of the MEC Daily Activities Checklist (work data, vehicle/equipment inspection, tailgate safety briefing, work start/stop notifications, site restoration, etc.)?	<u>F</u>			(I), (F)
32	MEC SOP 3 ATT 2	Did the Team Leader ensure all equipment was available prior to deployment to the field site in accordance with the MEC Equipment Checklist?	<u>F</u>			(I), (F)
33	MEC SOP 3 ATT 1	Did the Team Leader ensure vehicle inspection activities included the utilization and completion of the Vehicle/Heavy Equipment Inspection Checklist?	<u>F</u>			(I), (F)

### Three Phase Quality Control Checklist

#### Anomaly Investigations (MEC SOP 5)

Team: TWO

Location: CASTNER RAVINE

Date: 3/9/16

Personnel Present: SEE TEAM SIGN IN LIST

Phase of Inspection (Circle): PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)

#### Checklist

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	TMP	Have all intrusive operations team members reviewed the current SOP 5?	P			(P)
2	MEC SOP 5	Have client authorization, approved Project Plans, approved Explosives Safety Submission (ESS), approved SOPs, and all required forms and documentation been provided/received prior to the investigation, handling, storage, processing, and disposition of MEC/MPPEH?	P			(P)
3	MEC SOP 5	Are all personnel engaged in intrusive operations thoroughly trained in explosive safety, capable of recognizing hazardous situations, and in taking prompt corrective action following hazardous situation recognition?	P			(P), (I), (F)
4	TMP	Is a current copy of SOP-06 available to the Team when conducting field operations? Check date.	P			(P), (I), (F)
5	TMP	When site conditions warrant a deviation from procedures in SOP-06 to safely conduct intrusive operations at a certain location, is concurrence by the Senior UXO Supervisor (SUXOS), Project Manager, Project Manager (PM), and federal and state regulators (as required) obtained?	P			(P), (I), (F)
6	MEC SOP 5	Has the SUXOS completed the mandatory notifications prior to conducting intrusive operations? (i.e., Medical, Fire, Village Patrol, Community)				(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
7	MEC SOP 5	Has the community been informed of the project schedule and the expected impacts of intrusive operations in accordance with the project Work Plan?	P			(P), (I), (F)
8	MEC SOP 5	Are all UXO technicians assigned to this project qualified in accordance with Department of Defense Explosives Safety Board (DDESB) Technical Paper 18 (TP-	P			(P), (I), (F)
9	MEC SOP 5	Do all field personnel meet the training requirements presented in the TMP and SSHP with attendance sheets containing attached curriculum available to document completion of each orientation or training session?  <ul style="list-style-type: none"> <li>• Project summary</li> <li>• SSHP review</li> <li>• SOP review</li> <li>• Documentation training (Log books, Field Forms, Photographs)</li> <li>• Equipment training (Detectors, DGPS, ATVs, Heavy Equipment if required, etc.)</li> <li>• Safety (Notification procedures, Ordnance specific, Review of emergency response equipment, Talk/walk-through of emergency procedures, Emergency drill, Daily health and safety briefings to include tailgate briefings, Weekly site-specific munitions training)</li> </ul>	P			(P), (I), (F)
10	MEC SOP 5	Does the Senior UXO Supervisor (or his/her designee) hold a daily briefing at the beginning of each workday, in accordance with the requirements of the approved TMP covering, at a minimum, the following topics?  <ul style="list-style-type: none"> <li>• Work assignments (map and dig package provided)</li> <li>• Emergency procedure review</li> <li>• Munitions safety review</li> <li>• Communications procedures and equipment review</li> <li>• Site-specific hazard review and measures used to mitigate those hazards</li> <li>• Procedures for coordination of intrusive</li> </ul>	P			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
11	MEC SOP 5	Does the Senior UXO Supervisor document the daily briefings in his/her logbook and obtain the signatures of those attending on the daily briefing attendance sheet?	P H			(I), (F)
12	MEC SOP 5	Is an MEC Daily Activities Checklist prepared daily by the SUXOS and transferred to each UXO Team Leader with the assigned dig package(s)?				(I), (F)
13	MEC SOP 5	Is the MEC Daily Activities Checklist completed by the TL on site following daily tailgate safety meeting coverage of potential hazards in the work area, work assignments, equipment inspections, and other routine daily activities?	P MATCH ESTABLISHED			(I), (F)
14	MEC SOP 5	<p>Does the SUXOS, supported by the Geophysical FTL and DM, ensure that all equipment and instrumentation required for intrusive operations is present on site and checked out daily to ensure serviceability and proper function?</p> <p>Geonics EM61 MK2 electromagnetic all-metal detector</p> <ul style="list-style-type: none"> <li>• Vallon all-metal detector</li> <li>• Whites all-metal locator</li> </ul> <p>Trimble differential global positioning system (DGPS)</p> <p>Transport Vehicles and Mechanical Equipment (trucks, ARGOs, Backhoe, etc.)</p> <ul style="list-style-type: none"> <li>• Communication Devices (Radios and Cellular Phones)</li> <li>• Dig packages</li> </ul> <p>Non-Metallic Pin flags and Non-sparking fiberglass probe to guide pin flags</p> <ul style="list-style-type: none"> <li>• Digging Tools</li> <li>• Logbooks and field forms</li> <li>• Digital cameras</li> <li>• Safety and other equipment on the MEC Equipment Checklist</li> </ul>	P			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
15	MEC SOP 5	Do intrusive investigation teams meet SOP personnel composition requirements (up to 7 members consisting of a UXO Team leader, two 2-person dig teams and one 2-person reacquisition/dig team)?	P			(P), (I), (F)
16	DDESB TP 16,SOP- 07	Did the SUXOS ensure that an Exclusion Zone (EZ) was determined, established, and clearly delineated/marked, based upon the munition with the greatest fragmentation distance (MGFD) identified for each work site and the hazardous fragment distance (HFD) for that munition, prior to the conduct of MEC intrusive operations?	P			(P), (I), (F)
17	MEC SOP 5	Are only authorized and essential personnel, possessing the following, permitted entry into the EZ? <ul style="list-style-type: none"> <li>Personal protective equipment (PPE) in accordance with SSHP</li> <li>Medical authorization</li> <li>Training certification</li> <li>Understanding of the SSHP</li> <li>Approval of UXO personnel</li> <li>Knowledge of "Buddy System" Provisions</li> </ul>	P			(P), (I), (F)



Item	Ref.	Inspection Point	Yes	No	N/A	Comments
18	MEC SOP 5	<p>Is authorized visitor access and control provisions established and followed?</p> <p>Access is limited to essential personnel and authorized personnel.</p> <p>The UXO Safety Officer (UXOSO) has completed an operational risk assessment and ensures that visitors possess PPE, authorizations, training and certifications required for entry.</p> <p>The maximum number of persons allowed in the EZ is in accordance with risk estimation.</p> <p>Persons requesting access to the EZ must demonstrate a legitimate need for access and obtain authorization from the Project Manager and UXOSO and must submit their access request well enough in advance for the UXOSO to schedule an escort.</p> <p>Visitors receive a site-specific briefing explaining the hazards and safety procedures associated with the EZ and must acknowledge the receipt of the briefing in writing.</p> <ul style="list-style-type: none"> <li>Authorized visitors are escorted by UXO-qualified personnel at all times.</li> </ul> <p>Any authorized visitor who violates established safety procedures are immediately escorted out of the EZ for the visitor's own protection and to protect essential personnel in the EZ.</p>	P			(P), (I), (F)
19	MEC SOP 5	<p>If MEC items larger than the identified MGFD are encountered, do operations cease in the discovery AOC until an EZ appropriate for that munition(s) is determined and established?</p>	P			(P), (I), (F)



Item	Ref.	Inspection Point	Yes	No	N/A	Comments
20	MEC SOP 5	Are team separation distances between UXO teams in each area based on the K40 value (indicative of a blast over pressure of 1.2 psi) for the MGF, where the formula $D = KW^{1/3}$ is used (D-distance, W-the explosive weight of the munition)?	P			(P), (I), (F)
21	SSHP, MEC SOP 5	Are personnel prepared to direct and coordinate emergency evacuations when necessary with support from the local emergency services as outlined in the Evacuation Plan of the SSHP?	P			(P), (I), (F)
22	MEC SOP 5	At the beginning of each workday, do reacquisition personnel reacquire and mark anomalies to be excavated in accordance with SOP-05?	P			(P), (I), (F)
23	MEC SOP 5	Do intrusive team members pinpoint the exact location of anomalies in proximity to the interpreted target coordinates, using an all metals detector, in accordance with SOP provisions?	P In proximity to interpreted coordinates			(I), (F)
24	MEC SOP 5	Do all anomalies within the lot and chosen for post-dig anomaly resolution sampling pass the acceptance criteria (i.e., are the peak responses below the anomaly selection threshold)?	P Neutralized ES: 100% 100%			(I), (F)
25	MEC SOP 5	Is a listing of anomalies considered inaccessible due to standing water, bedrock, or other reasons included in the Contractor Production Report (CPR) and summarized at the weekly QC meeting, with the target also noted as an inaccessible dig with the reason for inaccessibility in the comment section of the Surface/Subsurface Clearance Data & Munitions Accountability Log?	P			(P), (I), (F)
26	MEC SOP 5	Did the UXO Team Leader notify the Command Center (Site Office) prior to commencing intrusive operations?	P			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
27	SOP-06	<p>Are investigation procedures performed in accordance with SOP-05 provisions:</p> <p>An appropriate EZ will be set up for intrusive operations.</p> <p>Each anomaly will be investigated by locating the boundaries and excavating gently to one side of the target.</p> <p>If mechanical equipment is used to gain access to an anomaly, the equipment will excavate to a point no closer than 12 inches from the anomaly, at which time hand excavation will occur to uncover the anomaly.</p> <ul style="list-style-type: none"> <li>Non MEC or Safe-to-Move MEC removed from the excavation, and consolidated for destruction or disposed of appropriately.</li> </ul> <p>MEC that cannot be safely removed from the excavation (fuzed/fired, etc.) will be coordinated with the SUXOS for in-situ destruction.</p> <p>Non MPPEH anomalies too large to be removed are left in place.</p> <p>Once an anomaly is removed or destroyed, the Team Leader inspects the excavation both visually and electronically to ensure that any target anomalies present to the dig depth have been removed.</p> <p>Investigation holes are backfilled following</p>				(I), (F)
28	MEC SOP 5	<p>Were approved procedures for located MEC/MPPEH items followed (data collection, data recording, data reporting, item storage, engineering controls, item disposition, etc.)?</p>				(I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
29	MEC SOP 5	<p>Were approved procedures for munitions with unknown fillers followed (work cessation, area evacuation, area security necessary coordination, site turnover)?</p> <ul style="list-style-type: none"> <li>• Immediate work cessation</li> <li>• On-site personnel withdraw upwind</li> </ul> <p>Two person team secure the area to prevent unauthorized access, positioning themselves as far upwind as possible while still maintaining security of the site</p> <p>The SUXOS and/or Project Superintendent notifies the Project Manager, who will then request EOD Mobile Unit Eleven, Detachment Northwest, to respond</p> <p>The SUXOS ensures that security on the site is maintained until the arrival of EOD, and assists them as necessary.</p>				(I), (F)
30	MEC SOP 5	When are appropriate processing procedures followed for hazardous and non-hazardous material other than MPPEH (Metal Debris, Chemicals, Other Hazards)?				(I), (F)
31	MEC SOP 5	Are MEC/MPPEH items handled and processed in accordance with the provisions of SOP-06?				(I), (F)
32	MEC SOP 5	Are Step-Outs appropriately identified, named, and processed?				(I), (F)

33	SOP-02	Does proper site restoration occur daily? Pin flags, signs, and barricades are removed as appropriate and excavated areas backfilled. Backfill material consists of native soil from the excavation. Open excavations will be marked by caution tape • Exclusion zone signs will be left in place if UXO remains in the work area. Exclusion zone signs may otherwise be left in place with approval of the SUXOS.				(I), (F)
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Punch List Items	
No.	

Conducted by: (b) (6) Acknowledged by:

Three Phase Quality Control Checklist

Anomaly Investigations (MEC SOP 5)

Team: CNE

Location: CASTNER RANGE

Date: 3/9/16

Personnel Present: SEB TEAM SIGN IN LIST

Phase of Inspection (Circle): PREPARATORY (P); INITIAL (I); FOLLOW-UP (F)

Checklist

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	TMP	Have all intrusive operations team members reviewed the current SOP 5?	P			(P)
2	MEC SOP 5	Have client authorization, approved Project Plans, approved Explosives Safety Submission (ESS), approved SOPs, and all required forms and documentation been provided/received prior to the investigation, handling, storage, processing, and disposition of MEC/MPPEH?	P			(P)
3	MEC SOP 5	Are all personnel engaged in intrusive operations thoroughly trained in explosive safety, capable of recognizing hazardous situations, and in taking prompt corrective action following hazardous situation recognition?	P			(P),(I),(F)
4	TMP	Is a current copy of SOP-06 available to the Team when conducting field operations? Check date.	P			(P),(I),(F)
5	TMP	When site conditions warrant a deviation from procedures in SOP-06 to safely conduct intrusive operations at a certain location, is concurrence by the Senior UXO Supervisor (SUXOS), Project Manager, Project Manager (PM), and federal and state regulators (as required) obtained?	P			(P),(I),(F)
6	MEC SOP 5	Has the SUXOS completed the mandatory notifications prior to conducting intrusive operations? (i.e., Medical, Fire, Village Patrol, Community)				(P),(I),(F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
7	MEC SOP 5	Has the community been informed of the project schedule and the expected impacts of intrusive operations in accordance with the project Work Plan?	P			(P),(I),(F)
8	MEC SOP 5	Are all UXO technicians assigned to this project qualified in accordance with Department of Defense Explosives Safety Board (DDESB) Technical Paper 18 (TP-	P			(P),(I),(F)
9	MEC SOP 5	Do all field personnel meet the training requirements presented in the TMP and SSHP with attendance sheets containing attached curriculum available to document completion of each orientation or training session?  <ul style="list-style-type: none"> <li>• Project summary</li> <li>• SSHP review</li> <li>• SOP review</li> <li>• Documentation training (Log books, Field Forms, Photographs)</li> <li>• Equipment training (Detectors, DGPS, ATVs, Heavy Equipment if required, etc.)</li> <li>• Safety (Notification procedures, Ordnance specific, Review of emergency response equipment, Talk/walk-through of emergency procedures, Emergency drill, Daily health and safety briefings to include tailgate briefings, Weekly site-specific munitions training)</li> </ul>	P			(P), (I),(F)
10	MEC SOP 5	Does the Senior UXO Supervisor (or his/her designee) hold a daily briefing at the beginning of each workday, in accordance with the requirements of the approved TMP covering, at a minimum, the following topics?  <ul style="list-style-type: none"> <li>• Work assignments (map and dig package provided)</li> <li>• Emergency procedure review</li> <li>• Munitions safety review</li> <li>• Communications procedures and equipment review</li> <li>• Site-specific hazard review and measures used to mitigate those hazards</li> <li>• Procedures for coordination of intrusive</li> </ul>	P			(P), (I),(F)



Item	Ref.	Inspection Point	Yes	No	N/A	Comments
11	MEC SOP 5	Does the Senior UXO Supervisor document the daily briefings in his/her logbook and obtain the signatures of those attending on the daily briefing attendance sheet?	I			(I), (F)
12	MEC SOP 5	Is an MEC Daily Activities Checklist prepared daily by the SUXOS and transferred to each UXO Team Leader with the assigned dig package(s)?				(I), (F)
13	MEC SOP 5	Is the MEC Daily Activities Checklist completed by the TL on site following daily tailgate safety meeting coverage of potential hazards in the work area, work assignments, equipment inspections, and other routine daily activities?				(I), (F)
14	MEC SOP 5	<p>Does the SUXOS, supported by the Geophysical FTL and DM, ensure that all equipment and instrumentation required for intrusive operations is present on site and checked out daily to ensure serviceability and proper function?</p> <p>Geonics EM61 MK2 electromagnetic all-metal detector</p> <ul style="list-style-type: none"> <li>• Vallon all-metal detector</li> <li>• Whites all-metal locator</li> </ul> <p>Trimble differential global positioning system (DGPS)</p> <p>Transport Vehicles and Mechanical Equipment (trucks, ARGOs, Backhoe, etc.)</p> <ul style="list-style-type: none"> <li>• Communication Devices (Radios and Cellular Phones)</li> <li>• Dig packages</li> </ul> <p>Non-Metallic Pin flags and Non-sparking fiberglass probe to guide pin flags</p> <ul style="list-style-type: none"> <li>• Digging Tools</li> <li>• Logbooks and field forms</li> <li>• Digital cameras</li> <li>• Safety and other equipment on the MEC Equipment Checklist</li> </ul>	P			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
15	MEC SOP 5	Do intrusive investigation teams meet SOP personnel composition requirements (up to 7 members consisting of a UXO Team leader, two 2-person dig teams and one 2-person reacquisition/dig team)?	P			(P), (I), (F)
16	DDESB TP 16,SOP- 07	Did the SUXOS ensure that an Exclusion Zone (EZ) was determined, established, and clearly delineated/marked, based upon the munition with the greatest fragmentation distance (MGFD) identified for each work site and the hazardous fragment distance (HFD) for that munition, prior to the conduct of MEC intrusive operations?	P			(P), (I), (F)
17	MEC SOP 5	Are only authorized and essential personnel, possessing the following, permitted entry into the EZ? <ul style="list-style-type: none"> <li>• Personal protective equipment (PPE) in accordance with SSHP</li> <li>• Medical authorization</li> <li>• Training certification</li> <li>• Understanding of the SSHP</li> <li>• Approval of UXO personnel</li> <li>• Knowledge of “Buddy System” Provisions</li> </ul>	P			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
18	MEC SOP 5	<p>Is authorized visitor access and control provisions established and followed?</p> <p>Access is limited to essential personnel and authorized personnel.</p> <p>The UXO Safety Officer (UXOSO) has completed an operational risk assessment and ensures that visitors possess PPE, authorizations, training and certifications required for entry.</p> <p>The maximum number of persons allowed in the EZ is in accordance with risk estimation.</p> <p>Persons requesting access to the EZ must demonstrate a legitimate need for access and obtain authorization from the Project Manager and UXOSO and must submit their access request well enough in advance for the UXOSO to schedule an escort.</p> <p>Visitors receive a site-specific briefing explaining the hazards and safety procedures associated with the EZ and must acknowledge the receipt of the briefing in writing.</p> <ul style="list-style-type: none"> <li>Authorized visitors are escorted by UXO-qualified personnel at all times.</li> </ul> <p>Any authorized visitor who violates established safety procedures are immediately escorted out of the EZ for the visitor's own protection and to protect essential personnel in the EZ.</p>	P			(P), (I), (F)
19	MEC SOP 5	<p>If MEC items larger than the identified MGFD are encountered, do operations cease in the discovery AOC until an EZ appropriate for that munition(s) is determined and established?</p>	P			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
20	MEC SOP 5	Are team separation distances between UXO teams in each area based on the K40 value (indicative of a blast over pressure of 1.2 psi) for the MGFD, where the formula $D = KW^{1/3}$ is used (D-distance, W-the explosive weight of the munition)?	P			(P), (I), (F)
21	SSHP, MEC SOP 5	Are personnel prepared to direct and coordinate emergency evacuations when necessary with support from the local emergency services as outlined in the Evacuation Plan of the SSHP?	P			(P), (I), (F)
22	MEC SOP 5	At the beginning of each workday, do reacquisition personnel reacquire and mark anomalies to be excavated in accordance with SOP-05?	P			(P), (I), (F)
23	MEC SOP 5	Do intrusive team members pinpoint the exact location of anomalies in proximity to the interpreted target coordinates, using an all metals detector, in accordance with SOP provisions?				(I), (F)
24	MEC SOP 5	Do all anomalies within the lot and chosen for post-dig anomaly resolution sampling pass the acceptance criteria (i.e., are the peak responses below the anomaly selection threshold)?				(I), (F)
25	MEC SOP 5	Is a listing of anomalies considered inaccessible due to standing water, bedrock, or other reasons included in the Contractor Production Report (CPR) and summarized at the weekly QC meeting, with the target also noted as an inaccessible dig with the reason for inaccessibility in the comment section of the Surface/Subsurface Clearance Data & Munitions Accountability Log?	P			(P), (I), (F)
26	MEC SOP 5	Did the UXO Team Leader notify the Command Center (Site Office) prior to commencing intrusive operations?	P			(P), (I), (F)



Item	Ref.	Inspection Point	Yes	No	N/A	Comments
29	MEC SOP 5	<p>Were approved procedures for munitions with unknown fillers followed (work cessation, area evacuation, area security necessary coordination, site turnover)?</p> <ul style="list-style-type: none"> <li>Immediate work cessation</li> <li>On-site personnel withdraw upwind</li> </ul> <p>Two person team secure the area to prevent unauthorized access, positioning themselves as far upwind as possible while still maintaining security of the site</p> <p>The SUXOS and/or Project Superintendent notifies the Project Manager, who will then request EOD Mobile Unit Eleven, Detachment Northwest, to respond</p> <p>The SUXOS ensures that security on the site is maintained until the arrival of EOD, and assists them as necessary.</p>				(I), (F)
30	MEC SOP 5	When are appropriate processing procedures followed for hazardous and non-hazardous material other than MPPEH (Metal Debris, Chemicals, Other Hazards)?				(I), (F)
31	MEC SOP 5	Are MEC/MPPEH items handled and processed in accordance with the provisions of SOP-06?				(I), (F)
32	MEC SOP 5	Are Step-Outs appropriately identified, named, and processed?				(I), (F)



33	SOP-02	Does proper site restoration occur daily?  Pin flags, signs, and barricades are removed as appropriate and excavated areas backfilled. Backfill material consists of native soil from the excavation. Open excavations will be marked by caution tape • Exclusion zone signs will be left in place if UXO remains in the work area. Exclusion zone signs may otherwise be left in place with approval of the SUXOS.				(I), (F)
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Punch List Items	
No.	

Conducted by: 

(b) (6)

 Acknowledged by:

**SIGN IN ANOMALY INVESTIGATION**

**MEC STANDARD OPERATING PROCEDURES**

**CLASS Castner Range**

Print Name	Team #	Signature
(b) (6)	2	(b) (6)
	1	
	1	
	1	
	1	
	1	
	1	
	2	
	2	
	2	
	2	
	2	
	1	

**Class given by** (b) (6) **Date:** 3/9/16

### Three Phase Quality Control Checklist

#### Anomaly Investigations (MEC SOP 5)

Team: Team One, Two

Location: Castner Range

Date: 15 March 2016

Personnel Present: ALL

Phase of Inspection (Circle): *PREPARATORY (P)*; **INITIAL (I)**; *FOLLOW-UP (F)*

#### Checklist

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
1	TMP	Have all intrusive operations team members reviewed the current SOP 5?				(P)
2	MEC SOP 5	Have client authorization, approved Project Plans, approved Explosives Safety Submission (ESS), approved SOPs, and all required forms and documentation been provided/received prior to the investigation, handling, storage, processing, and disposition of MEC/MPPEH?				(P)
3	MEC SOP 5	Are all personnel engaged in intrusive operations thoroughly trained in explosive safety, capable of recognizing hazardous situations, and in taking prompt corrective action following hazardous situation recognition?	I			(P),(I),(F)
4	TMP	Is a current copy of SOP-06 available to the Team when conducting field operations? <i>Check date.</i>	I			(P),(I),(F)
5	TMP	When site conditions warrant a deviation from procedures in SOP-06 to safely conduct intrusive operations at a certain location, is concurrence by the Senior UXO Supervisor (SUXOS), Project Manager, Project Manager (PM), and federal and state regulators (as required) obtained?	I			(P),(I),(F)
6	MEC SOP 5	Has the SUXOS completed the mandatory notifications prior to conducting intrusive operations? (i.e., <i>Medical, Fire, Village Patrol, Community</i> )	I			(P), (I),(F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
7	MEC SOP 5	Has the community been informed of the project schedule and the expected impacts of intrusive operations in accordance with the project Work Plan?	I			(P), (I), (F)
8	MEC SOP 5	Are all UXO technicians assigned to this project qualified in accordance with Department of Defense Explosives Safety Board (DDESB) Technical Paper 18 (TP-	I			(P), (I), (F)
9	MEC SOP 5	<p>Do all field personnel meet the training requirements presented in the TMP and SSHP with attendance sheets containing attached curriculum available to document completion of each orientation or training session?</p> <ul style="list-style-type: none"> <li>• Project summary</li> <li>• SSHP review</li> <li>• SOP review</li> <li>• Documentation training (Log books, Field Forms, Photographs)</li> <li>• Equipment training (Detectors, DGPS, ATVs, Heavy Equipment if required, etc.)</li> <li>• Safety (Notification procedures, Ordnance specific, Review of emergency response equipment, Talk/walk-through of emergency procedures, Emergency drill, Daily health and safety briefings to include tailgate briefings, Weekly site-specific munitions training)</li> </ul>	I			(P), (I), (F)
10	MEC SOP 5	<p>Does the Senior UXO Supervisor (or his/her designee) hold a daily briefing at the beginning of each workday, in accordance with the requirements of the approved TMP covering, at a minimum, the following topics?</p> <ul style="list-style-type: none"> <li>• Work assignments (map and dig package provided)</li> <li>• Emergency procedure review</li> <li>• Munitions safety review</li> <li>• Communications procedures and equipment review</li> <li>• Site-specific hazard review and measures used to mitigate those hazards</li> <li>• Procedures for coordination of intrusive</li> </ul>	I			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
11	MEC SOP 5	Does the Senior UXO Supervisor document the daily briefings in his/her logbook and obtain the signatures of those attending on the daily briefing attendance sheet?	I			(I), (F)
12	MEC SOP 5	Is an MEC Daily Activities Checklist prepared daily by the SUXOS and transferred to each UXO Team Leader with the assigned dig package(s)?	I			(I), (F)
13	MEC SOP 5	Is the MEC Daily Activities Checklist completed by the TL on site following daily tailgate safety meeting coverage of potential hazards in the work area, work assignments, equipment inspections, and other routine daily activities?	I			(I), (F)
14	MEC SOP 5	<p>Does the SUXOS, supported by the Geophysical FTL and DM, ensure that all equipment and instrumentation required for intrusive operations is present on site and checked out daily to ensure serviceability and proper function?</p> <p>Geonics EM61 MK2 electromagnetic all-metal detector</p> <ul style="list-style-type: none"> <li>• Vallon all-metal detector</li> <li>• Whites all-metal locator</li> </ul> <p>Trimble differential global positioning system (DGPS)</p> <p>Transport Vehicles and Mechanical Equipment (trucks, ARGOS, Backhoe, etc.)</p> <ul style="list-style-type: none"> <li>• Communication Devices (Radios and Cellular Phones)</li> <li>• Dig packages</li> </ul> <p>Non-Metallic Pin flags and Non-sparking fiberglass probe to guide pin flags</p> <ul style="list-style-type: none"> <li>• Digging Tools</li> <li>• Logbooks and field forms</li> <li>• Digital cameras</li> <li>• Safety and other equipment on the MEC Equipment Checklist</li> </ul>	I			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
15	MEC SOP 5	Do intrusive investigation teams meet SOP personnel composition requirements (up to 7 members consisting of a UXO Team leader, two 2-person dig teams and one 2-person reacquisition/dig team)?	I			(P), (I), (F)
16	DDESB TP 16,SOP- 07	Did the SUXOS ensure that an Exclusion Zone (EZ) was determined, established, and clearly delineated/marked, based upon the munition with the greatest fragmentation distance (MGFD) identified for each work site and the hazardous fragment distance (HFD) for that munition, prior to the conduct of MEC intrusive operations?	I			(P), (I), (F)
17	MEC SOP 5	<p>Are only authorized and essential personnel, possessing the following, permitted entry into the EZ?</p> <ul style="list-style-type: none"> <li>• Personal protective equipment (PPE) in accordance with SSHP</li> <li>• Medical authorization</li> <li>• Training certification</li> <li>• Understanding of the SSHP</li> <li>• Approval of UXO personnel</li> <li>• Knowledge of “Buddy System” Provisions</li> </ul>	I			(P), (I), (F)



Item	Ref.	Inspection Point	Yes	No	N/A	Comments
18	MEC SOP 5	<p>Is authorized visitor access and control provisions established and followed?</p> <p>Access is limited to essential personnel and authorized personnel.</p> <p>The UXO Safety Officer (UXOSO) has completed an operational risk assessment and ensures that visitors possess PPE, authorizations, training and certifications required for entry.</p> <p>The maximum number of persons allowed in the EZ is in accordance with risk estimation.</p> <p>Persons requesting access to the EZ must demonstrate a legitimate need for access and obtain authorization from the Project Manager and UXOSO and must submit their access request well enough in advance for the UXOSO to schedule an escort.</p> <p>Visitors receive a site-specific briefing explaining the hazards and safety procedures associated with the EZ and must acknowledge the receipt of the briefing in writing.</p> <ul style="list-style-type: none"> <li>Authorized visitors are escorted by UXO-qualified personnel at all times.</li> </ul> <p>Any authorized visitor who violates established safety procedures are immediately escorted out of the EZ for the visitor's own protection and to protect essential personnel in the EZ.</p>	I			(P), (I), (F)
19	MEC SOP 5	<p>If MEC items larger than the identified MGFDF are encountered, do operations cease in the discovery AOC until an EZ appropriate for that munition(s) is determined and established?</p>	I			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
20	MEC SOP 5	Are team separation distances between UXO teams in each area based on the K40 value (indicative of a blast over pressure of 1.2 psi) for the MGFD, where the formula $D = KW^{1/3}$ is used (D-distance, W-the explosive weight of the munition)?	I			(P), (I), (F)
21	SSHP, MEC SOP 5	Are personnel prepared to direct and coordinate emergency evacuations when necessary with support from the local emergency services as outlined in the Evacuation Plan of the SSHP?	I			(P), (I), (F)
22	MEC SOP 5	At the beginning of each workday, do reacquisition personnel reacquire and mark anomalies to be excavated in accordance with SOP-05?	I			(P), (I), (F)
23	MEC SOP 5	Do intrusive team members pinpoint the exact location of anomalies in proximity to the interpreted target coordinates, using an all metals detector, in accordance with SOP provisions?	I			(I), (F)
24	MEC SOP 5	Do all anomalies within the lot and chosen for post-dig anomaly resolution sampling pass the acceptance criteria (i.e., are the peak responses below the anomaly selection threshold)?	I			(I), (F)
25	MEC SOP 5	Is a listing of anomalies considered inaccessible due to standing water, bedrock, or other reasons included in the Contractor Production Report (CPR) and summarized at the weekly QC meeting, with the target also noted as an inaccessible dig with the reason for inaccessibility in the comment section of the Surface/Subsurface Clearance Data & Munitions Accountability Log?	I			(P), (I), (F)
26	MEC SOP 5	Did the UXO Team Leader notify the Command Center (Site Office) prior to commencing intrusive operations?	I			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
27	SOP-06	<p>Are investigation procedures performed in accordance with SOP-05 provisions:</p> <p>An appropriate EZ will be set up for intrusive operations.</p> <p>Each anomaly will be investigated by locating the boundaries and excavating gently to one side of the target.</p> <p>If mechanical equipment is used to gain access to an anomaly, the equipment will excavate to a point no closer than 12 inches from the anomaly, at which time hand excavation will occur to uncover the anomaly.</p> <ul style="list-style-type: none"> <li>Non MEC or Safe-to-Move MEC removed from the excavation, and consolidated for destruction or disposed of appropriately.</li> </ul> <p>MEC that cannot be safely removed from the excavation (fuzed/fired, etc.) will be coordinated with the SUXOS for in-situ destruction.</p> <p>Non MPPEH anomalies too large to be removed are left in place.</p> <p>Once an anomaly is removed or destroyed, the Team Leader inspects the excavation both visually and electronically to ensure that any target anomalies present to the dig depth have been removed.</p>	I			(I), (F)
28	MEC SOP 5	Were approved procedures for located MEC/MPPEH items followed (data collection, data recording, data reporting, item storage, engineering controls, item disposition, etc.)?	I			(I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
29	MEC SOP 5	<p>Were approved procedures for munitions with unknown fillers followed (work cessation, area evacuation, area security necessary coordination, site turnover)?</p> <ul style="list-style-type: none"> <li>• Immediate work cessation</li> <li>• On-site personnel withdraw upwind</li> <li>• Two person team secure the area to prevent unauthorized access, positioning themselves as far upwind as possible while still maintaining security of the site</li> <li>• The SUXOS and/or Project Superintendent notifies the Project Manager, who will then request EOD Mobile Unit Eleven, Detachment Northwest, to respond</li> </ul> <p>The SUXOS ensures that security on the site is maintained until the arrival of EOD,</p>	I			(I), (F)
30	MEC SOP 5	When are appropriate processing procedures followed for hazardous and non-hazardous material other than MPPEH (Metal Debris, Chemicals, Other Hazards)?	I			(I), (F)
31	MEC SOP 5	Are MEC/MPPEH items handled and processed in accordance with the provisions of SOP-06?	I			(I), (F)
32	MEC SOP 5	Are Step-Outs appropriately identified, named, and processed?	I			(I), (F)
33	SOP-02	<p>Does proper site restoration occur daily?</p> <p>Pin flags, signs, and barricades are removed as appropriate and excavated areas backfilled. Backfill material consists of native soil from the excavation.</p> <p>Open excavations will be marked by caution tape</p> <ul style="list-style-type: none"> <li>• Exclusion zone signs will be left in place if UXO remains in the work area.</li> </ul> <p>Exclusion zone signs may otherwise be left in place with approval of the SUXOS.</p>	I			(I), (F)
Punch List Items						
No.						


Conducted by: (b) (6) Acknowledged by: \_\_\_\_\_

<b>Three Phase Quality Control Checklist</b>						
<b>Anomaly Investigations (MEC SOP 5)</b>						
Team: Team One, Two		Location: Castner Range		Date: 21 March 2016		
Personnel Present: ALL						
Phase of Inspection (Circle): <i>PREPARATORY (P)</i> ; <i>INITIAL (I)</i> ; <i>FOLLOW-UP (F)</i>						
<b>Checklist</b>						
<b>Item</b>	<b>Ref.</b>	<b>Inspection Point</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Comments</b>
1	TMP	Have all intrusive operations team members reviewed the current SOP 5?				(P)
2	MEC SOP 5	Have client authorization, approved Project Plans, approved Explosives Safety Submission (ESS), approved SOPs, and all required forms and documentation been provided/received prior to the investigation, handling, storage, processing, and disposition of MEC/MPPEH?				(P)
3	MEC SOP 5	Are all personnel engaged in intrusive operations thoroughly trained in explosive safety, capable of recognizing hazardous situations, and in taking prompt corrective action following hazardous situation recognition?	F			(P),(I),(F)
4	TMP	Is a current copy of SOP-06 available to the Team when conducting field operations? <i>Check date.</i>	F			(P),(I),(F)
5	TMP	When site conditions warrant a deviation from procedures in SOP-06 to safely conduct intrusive operations at a certain location, is concurrence by the Senior UXO Supervisor (SUXOS), Project Manager, Project Manager (PM), and federal and state regulators (as required) obtained?	F			(P),(I),(F)
6	MEC SOP 5	Has the SUXOS completed the mandatory notifications prior to conducting intrusive operations? (i.e., <i>Medical, Fire, Village Patrol, Community</i> )	F			(P), (I),(F)



Item	Ref.	Inspection Point	Yes	No	N/A	Comments
7	MEC SOP 5	Has the community been informed of the project schedule and the expected impacts of intrusive operations in accordance with the project Work Plan?	F			(P),(I),(F)
8	MEC SOP 5	Are all UXO technicians assigned to this project qualified in accordance with Department of Defense Explosives Safety Board (DDESB) Technical Paper 18 (TP-	F			(P),(I),(F)
9	MEC SOP 5	<p>Do all field personnel meet the training requirements presented in the TMP and SSHP with attendance sheets containing attached curriculum available to document completion of each orientation or training session?</p> <ul style="list-style-type: none"> <li>• Project summary</li> <li>• SSHP review</li> <li>• SOP review</li> <li>• Documentation training (Log books, Field Forms, Photographs)</li> <li>• Equipment training (Detectors, DGPS, ATVs, Heavy Equipment if required, etc.)</li> <li>• Safety (Notification procedures, Ordnance specific, Review of emergency response equipment, Talk/walk-through of emergency procedures, Emergency drill, Daily health and safety briefings to include tailgate briefings, Weekly site-specific munitions training)</li> </ul>	F			(P), (I),(F)
10	MEC SOP 5	<p>Does the Senior UXO Supervisor (or his/her designee) hold a daily briefing at the beginning of each workday, in accordance with the requirements of the approved TMP covering, at a minimum, the following topics?</p> <ul style="list-style-type: none"> <li>• Work assignments (map and dig package provided)</li> <li>• Emergency procedure review</li> <li>• Munitions safety review</li> <li>• Communications procedures and equipment review</li> <li>• Site-specific hazard review and measures used to mitigate those hazards</li> <li>• Procedures for coordination of intrusive</li> </ul>	F			(P), (I),(F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
11	MEC SOP 5	Does the Senior UXO Supervisor document the daily briefings in his/her logbook and obtain the signatures of those attending on the daily briefing attendance sheet?	F			(I), (F)
12	MEC SOP 5	Is an MEC Daily Activities Checklist prepared daily by the SUXOS and transferred to each UXO Team Leader with the assigned dig package(s)?	F			(I), (F)
13	MEC SOP 5	Is the MEC Daily Activities Checklist completed by the TL on site following daily tailgate safety meeting coverage of potential hazards in the work area, work assignments, equipment inspections, and other routine daily activities?	F			(I), (F)
14	MEC SOP 5	<p>Does the SUXOS, supported by the Geophysical FTL and DM, ensure that all equipment and instrumentation required for intrusive operations is present on site and checked out daily to ensure serviceability and proper function?</p> <p>Geonics EM61 MK2 electromagnetic all-metal detector</p> <ul style="list-style-type: none"> <li>• Vallon all-metal detector</li> <li>• Whites all-metal locator</li> </ul> <p>Trimble differential global positioning system (DGPS)</p> <p>Transport Vehicles and Mechanical Equipment (trucks, ARGOs, Backhoe, etc.)</p> <ul style="list-style-type: none"> <li>• Communication Devices (Radios and Cellular Phones)</li> <li>• Dig packages</li> </ul> <p>Non-Metallic Pin flags and Non-sparking fiberglass probe to guide pin flags</p> <ul style="list-style-type: none"> <li>• Digging Tools</li> <li>• Logbooks and field forms</li> <li>• Digital cameras</li> <li>• Safety and other equipment on the MEC Equipment Checklist</li> </ul>	F			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
15	MEC SOP 5	Do intrusive investigation teams meet SOP personnel composition requirements (up to 7 members consisting of a UXO Team leader, two 2-person dig teams and one 2-person reacquisition/dig team)?	F			(P), (I), (F)
16	DDESB TP 16,SOP- 07	Did the SUXOS ensure that an Exclusion Zone (EZ) was determined, established, and clearly delineated/marked, based upon the munition with the greatest fragmentation distance (MGFD) identified for each work site and the hazardous fragment distance (HFD) for that munition, prior to the conduct of MEC intrusive operations?	F			(P), (I), (F)
17	MEC SOP 5	Are only authorized and essential personnel, possessing the following, permitted entry into the EZ? <ul style="list-style-type: none"> <li>Personal protective equipment (PPE) in accordance with SSHP</li> <li>Medical authorization</li> <li>Training certification</li> <li>Understanding of the SSHP</li> <li>Approval of UXO personnel</li> <li>Knowledge of “Buddy System” Provisions</li> </ul>	F			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
18	MEC SOP 5	<p>Is authorized visitor access and control provisions established and followed?</p> <p>Access is limited to essential personnel and authorized personnel.</p> <p>The UXO Safety Officer (UXOSO) has completed an operational risk assessment and ensures that visitors possess PPE, authorizations, training and certifications required for entry.</p> <p>The maximum number of persons allowed in the EZ is in accordance with risk estimation.</p> <p>Persons requesting access to the EZ must demonstrate a legitimate need for access and obtain authorization from the Project Manager and UXOSO and must submit their access request well enough in advance for the UXOSO to schedule an escort.</p> <p>Visitors receive a site-specific briefing explaining the hazards and safety procedures associated with the EZ and must acknowledge the receipt of the briefing in writing.</p> <ul style="list-style-type: none"> <li>• Authorized visitors are escorted by UXO-qualified personnel at all times.</li> </ul> <p>Any authorized visitor who violates established safety procedures are immediately escorted out of the EZ for the visitor's own protection and to protect essential personnel in the EZ.</p>	F			(P), (I), (F)
19	MEC SOP 5	<p>If MEC items larger than the identified MGFD are encountered, do operations cease in the discovery AOC until an EZ appropriate for that munition(s) is determined and established?</p>	F			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
20	MEC SOP 5	Are team separation distances between UXO teams in each area based on the K40 value (indicative of a blast over pressure of 1.2 psi) for the MGFD, where the formula $D = KW^{1/3}$ is used (D-distance, W-the explosive weight of the munition)?	F			(P), (I), (F)
21	SSHP, MEC SOP 5	Are personnel prepared to direct and coordinate emergency evacuations when necessary with support from the local emergency services as outlined in the Evacuation Plan of the SSHP?	F			(P), (I), (F)
22	MEC SOP 5	At the beginning of each workday, do reacquisition personnel reacquire and mark anomalies to be excavated in accordance with SOP-05?	F			(P), (I), (F)
23	MEC SOP 5	Do intrusive team members pinpoint the exact location of anomalies in proximity to the interpreted target coordinates, using an all metals detector, in accordance with SOP provisions?	F			(I), (F)
24	MEC SOP 5	Do all anomalies within the lot and chosen for post-dig anomaly resolution sampling pass the acceptance criteria (i.e., are the peak responses below the anomaly selection threshold)?	F			(I), (F)
25	MEC SOP 5	Is a listing of anomalies considered inaccessible due to standing water, bedrock, or other reasons included in the Contractor Production Report (CPR) and summarized at the weekly QC meeting, with the target also noted as an inaccessible dig with the reason for inaccessibility in the comment section of the Surface/Subsurface Clearance Data & Munitions Accountability Log?	F			(P), (I), (F)
26	MEC SOP 5	Did the UXO Team Leader notify the Command Center (Site Office) prior to commencing intrusive operations?	F			(P), (I), (F)

Item	Ref.	Inspection Point	Yes	No	N/A	Comments
27	SOP-06	<p>Are investigation procedures performed in accordance with SOP-05 provisions:</p> <p>An appropriate EZ will be set up for intrusive operations.</p> <p>Each anomaly will be investigated by locating the boundaries and excavating gently to one side of the target.</p> <p>If mechanical equipment is used to gain access to an anomaly, the equipment will excavate to a point no closer than 12 inches from the anomaly, at which time hand excavation will occur to uncover the anomaly.</p> <ul style="list-style-type: none"> <li>• Non MEC or Safe-to-Move MEC removed from the excavation, and consolidated for destruction or disposed of appropriately.</li> </ul> <p>MEC that cannot be safely removed from the excavation (fuzed/fired, etc.) will be coordinated with the SUXOS for in-situ destruction.</p> <p>Non MPPEH anomalies too large to be removed are left in place.</p> <p>Once an anomaly is removed or destroyed, the Team Leader inspects the excavation both visually and electronically to ensure that any target anomalies present to the dig depth have been removed.</p>	F			(I), (F)
28	MEC SOP 5	Were approved procedures for located MEC/MPPEH items followed (data collection, data recording, data reporting, item storage, engineering controls, item disposition, etc.)?	F			(I), (F)



Item	Ref.	Inspection Point	Yes	No	N/A	Comments
29	MEC SOP 5	<p>Were approved procedures for munitions with unknown fillers followed (work cessation, area evacuation, area security necessary coordination, site turnover)?</p> <ul style="list-style-type: none"> <li>• Immediate work cessation</li> <li>• On-site personnel withdraw upwind</li> <li>• Two person team secure the area to prevent unauthorized access, positioning themselves as far upwind as possible while still maintaining security of the site</li> <li>• The SUXOS and/or Project Superintendent notifies the Project Manager, who will then request EOD Mobile Unit Eleven, Detachment Northwest, to respond</li> </ul> <p>The SUXOS ensures that security on the site is maintained until the arrival of EOD,</p>	F			(I), (F)
30	MEC SOP 5	When are appropriate processing procedures followed for hazardous and non-hazardous material other than MPPEH (Metal Debris, Chemicals, Other Hazards)?	F			(I), (F)
31	MEC SOP 5	Are MEC/MPPEH items handled and processed in accordance with the provisions of SOP-06?	F			(I), (F)
32	MEC SOP 5	Are Step-Outs appropriately identified, named, and processed?	F			(I), (F)
33	SOP-02	<p>Does proper site restoration occur daily?</p> <p>Pin flags, signs, and barricades are removed as appropriate and excavated areas backfilled. Backfill material consists of native soil from the excavation.</p> <p>Open excavations will be marked by caution tape</p> <ul style="list-style-type: none"> <li>• Exclusion zone signs will be left in place if UXO remains in the work area.</li> </ul> <p>Exclusion zone signs may otherwise be left in place with approval of the SUXOS.</p>	F			(I), (F)
<b>Punch List Items</b>						
No.						


Conducted by (b) (6) [REDACTED] knowledgeable by: \_\_\_\_\_